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IMPACT OF REDUCED DEFENSE SPENDING ON U.S. DEFENSE CONTRACTORS ANNEX D TO ADJUSTING TO THE DRAWDOWN REPORT OF THE DEFENSE CONVERSION COMMISSION

U.S. DEFENSE CONVERSION COMMISSION
WASHINGTON, DC

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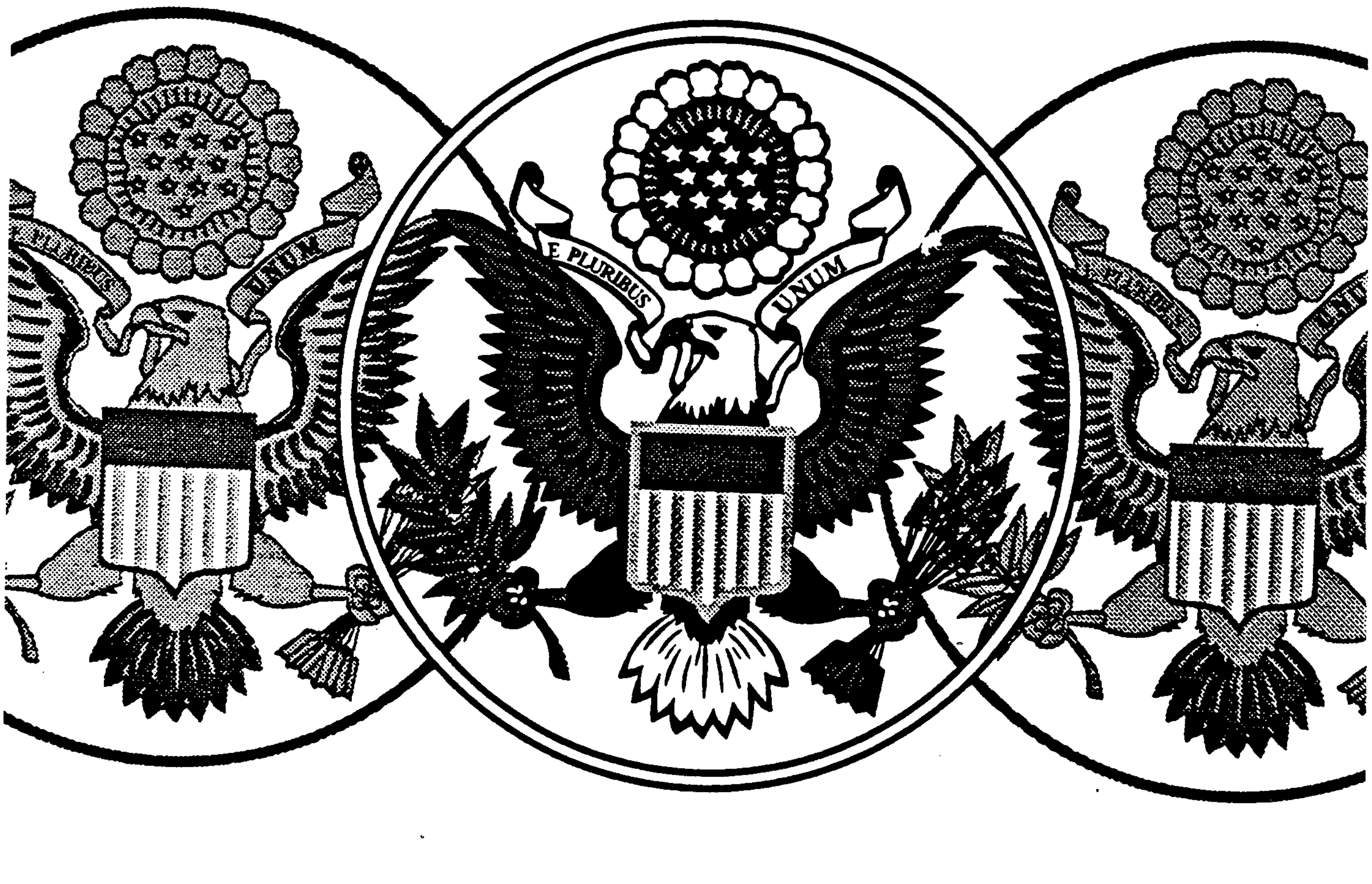
The Impact of Reduced Defense Spending on U.S. Defense Contractors



Annex D to
Adjusting to the Drawdown
Report of the
Defense Conversion Commission

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Abstract: The report evaluates the current and future financial conditions of majo defense contractors and evaluates the ability of these corporations to withstand the downturn in defense spending. The study was divided into two parts: (1) assessing the likely financial impacts to the top 25 DoD contractors resulting fro reduced DoD spending and evaluating these firms' opportunities for and ability to finance diversification; and (2) sizing non-traditional markets that may offset some or all of the decline in DoD spending.

The Impact of Reduced Defense Spending on U.S. Defense Contractors

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Adjusting to the Drawdown

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Defense Conversion Commission

February 1993

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EXECUTIVE SUMMARY

All defense contractors are feeling the impact of lower defense spending. It is reflected in the value of new contracts awarded, the amount of revenues these contracts ultimately generate, and the ability to invest in the future. The impacts to company financial performance have necessitated drastic cost cutting measures and redirection of strategic plans.

After reviewing the financial performance and strategic plans of the top 25 defense contractors, DRI concludes that, for the most part, these companies will successfully manage the decline in defense spending and sustain the financial conditions necessary for a strong industrial base. There will be major consolidation as firms focus on their own defense segments, try to merge with or acquire similar business units, reduce duplicate costs, and improve operating results. It is clear after reviewing each company's stated plans and objectives that firms dominated by a defense business base are not pursuing commercial diversification. These firms do not believe they can make the transition successfully and are rightly convinced that sizable opportunities are not available.

Of the dedicated defense firms (70% or more defense-related work), only General Dynamics will pursue a complete or near complete liquidation. At present, it is negotiating to sell its combat aircraft business, its one remaining operation with large sales potential.

Grumman has dramatically improved its financial position over the last year and has a choice of surviving as a much smaller company or liquidating. Likewise, Northrop has stabilized its financial condition and with an increased commercial aircraft focus looks reasonably well positioned. Martin Marietta, Lockheed, and Loral are moving aggressively to consolidate business segments in their respective markets while improving financial performance.

McDonnell Douglas remains a serious problem. Of late, it has decided to focus on its core business, sell off non-core segments, cut costs, and consolidate. It is burdened by serious debt problems and failed to find a much needed equity partner for its commercial aircraft business.

Of the companies where defense business accounts for 30-70% of total revenues, the strategies and outlook are different. Textron and TRW are managing their defense segments for cash and investing the money in non-defense holdings. Raytheon, Litton and Rockwell have focused on cost cutting and consolidation strategies which are well managed and meeting financial objectives.

General Motors, Texas Instruments and Unisys, all with less than a 30% defense business base, are facing serious financial problems that indirectly impact defense business lines. Their problems do not stem from their defense segments. At some point, they may be forced to liquidate defense holdings.

As defense contractors look for market opportunities with the potential to replace lost defense-related revenue, they find that commercial diversification that leverages their high- technology advantages is abstract and without significant near-term revenue. In the longer-term, some of these markets such as air traffic control, high-speed ground transportation, intelligent vehicle highway systems, and non-defense space will contribute modestly to defense contractor finances.

INTRODUCTION

The dramatic reduction in U.S. military expenditures is presenting a serious challenge to the financial stability of U.S. defense and aerospace corporations, and to the long-term status of the nation's defense industrial base. To a large extent, the financial health of major defense contractors will dictate the ability of the nation to maintain the key manufacturing capabilities needed to respond to future demands for the production of military hardware. DRI/McGraw-Hill (DRI) is supporting the research needs of the Defense Conversion Commission by evaluating the current and future financial conditions of major defense contractors and evaluating the ability of these corporations to withstand the downturn in defense spending. DRI's efforts were directed at (1) assessing the likely financial impacts to the top 25 DoD contractors resulting from reduced DoD spending and evaluating these firms' opportunities for and ability to finance diversification; and (2) sizing non-traditional markets that may offset some or all of the decline in DoD spending.

In the first part of this study, DRI focuses on contractor finances and diversification plans, so as to comprehensively evaluate the survivability of top corporate entities within the national defense industrial base. This investigation addresses the following basic questions:

- What are the current financial conditions of the defense contractors?
- What are their announced diversification plans (if any)?
- What are the likely impacts to their balance sheets and to what extent will they be able to finance diversification?

Assessing the current financial conditions involved an analysis of the revenues (sales), profits, capital investment, debt rating, debt levels, ability to borrow, cash flow and cost management of corporate balance sheets. In addition, DRI translated the firms' backlogs into projections of future revenue streams. Out of this initial review, DRI developed a financial profile of the contractors and ranked them in terms of their present financial status, thereby presenting a benchmark against which projected impacts are measured.

The next step involved researching and reporting on the announced diversification plans of the top 25 corporations. This provides a general understanding of where the companies would like to be in the future and the overall strategy by which they plan to get there. It also suggests the magnitude of investment required over the next five to ten years, a key input when projecting future financial performance. All information on corporate diversification plans was acquired from public documents and direct communications with corporate communications and public relations staffs.

Finally, DRI undertook a detailed forecast of the financial impacts stemming from lower defense expenditures and assessed the future capabilities of defense contractors to finance their diversification requirements. DRI used its proprietary macroeconomic, industry, and corporate cash flow modeling systems to develop a forecast of key corporate financial indicators. The indicators include revenues (sales), costs, long- and short-term debt, profits, and cash flow. After completing the forecast, DRI analyzed the current and relative positions of each contractor. From this, conclusions were then drawn about the:

- revenues at risk;
- balance sheet impacts;
- financing requirements;
- capability to incur debt;
- ability to meet diversification plans;
- contractor's ability to survive;
- future of the defense industrial base; and,
- likely consolidation scenarios.

In the second part of the study, DRI evaluated market opportunities that potentially fill the shortfall between DoD spending and contractor revenue targets. The markets investigated were non-traditional in that they represent non-defense market opportunities that are realistic for defense contractors to pursue given their core competencies. DRI's analysis addressed the following questions:

- What are the potential markets that require defense contractor capabilities (i.e., technical skills, production facilities, technologies)?

- Will there be a demand for these goods and services?

- How large will these markets be over the next 10 years?

- Will these markets provide sufficient revenue opportunities for defense contractors to sustain diversification, or will they provide revenues insufficient to maintain the defense industrial base?

At the outset, DRI identified a set of markets that defense contractors could pursue by successfully leveraging their large scale high-technology systems integration and complex systems capabilities. We recognized that defense firms will not successfully pursue radical departures, such as consumer electronics, but will instead focus on the opportunities most similar to their existing lines of business. Using this qualification, DRI selected the following markets: commercial aircraft manufacturing, air traffic control systems, non-defense space, environmental services, intelligent vehicle-highway systems, and high-speed ground transportation.

Once the markets were chosen, DRI investigated the factors driving demand and forecasted the market sizes to 2002. Finally, we evaluated the total size of the markets in relation to the shortfall created by the defense spending decline and estimated the extent to which these alternative markets will help contractors maintain the financial strength needed to sustain the industrial base.

PART I

Defense Spending and Contractor Financial Performance

THE DEFENSE SPENDING OUTLOOK

The magnitude of the current defense spending downturn is dramatic by any measure. It is almost as severe as the post-Vietnam defense spending decline (see table below). While the present drawdown is occurring over a more compressed period of time than that which occurred after Vietnam, it is slightly less pronounced in terms of the year-to-year percentage decline in defense budget outlays.

PEAK - TO - TROUGH DRAWDOWN
Constant 1993 Budget Outlays
(Compound Average Annual Rates of Change)

	Post-Vietnam	Present Draw-Down
Drawdown Period	9 years	8 years
Total Outlays	-4.6%	-4.4%
Procurement Plus RDT&E	-6.9%	-5.5%
Procurement Only	-8.2%	-6.5%

According to the Logistics Management Institute (LMI), DoD Budget Outlays in current dollars are projected to go from $295 billion in 1992 to $274 billion in 1997, a drop 7.1%. In constant 1993 dollars the outlook calls for a drop from $306 billion in 1992 to $237 billion in 1997, a decline of 22.5%. This dramatic decline comes on the heels of a 10% decline over the previous five years. In other words, real spending on defense is projected to decline over 30% from 1987 to 1997.

Combined, outlays for procurement and RDT&E (the defense budget categories with the greatest impact on the financial performance of defense contractors) are projected to decline from a peak of $142 billion in

1987 to $86 billion in 1997, a decline of nearly 40% in real terms. Not surprisingly, when a market shrinks by 40% in real terms an environment of tremendous uncertainty is created and enormous pressures are placed on market participants, especially enterprises that have historically relied on the single market. Corporations that are already diversified and are only partly exposed to the shrinking market are better positioned to withstand the downturn and offset losses with opportunities in other business segments.

THE TOP 25 DEFENSE CONTRACTORS

For this study, the top defense contractors were selected from DoD's 100 Companies Receiving the Largest Dollar Volume of Prime Contract Awards for Fiscal Year 1991. The following changes to DoD's list were made:

- LTV Corporation was excluded because of the recent acquisition of its defense segment by Loral/Carlyle/Northrop;
- Bath Holding Corporation was excluded because it is a privately held entity and financial information is not publicly reported;
- Fed Ex Pan Am Northwest et al. were excluded; and
- GTE Corporation and Allied Signal were added.
- Also, it should be noted that General Motors (GM), in addition to its subsidiary Hughes, was included since GM's non-Hughes defense related revenue of $1 billion placed it among the top defense contractors.

The list of 25 firms is presented in the table below. The firms are ranked in the table by total defense related revenues in 1991. As can be seen by comparing the defense shares, there are various degrees of exposure to the defense spending slowdown. For this reason the top 25 contractors are grouped according to the proportion of their defense-related revenue:

- Extremely Exposed (70%+)
- Highly Exposed (30-70%)
- Moderately Exposed (15-30%)
- Minimally Exposed (0-15%)

Top 25 Defense Contractors
1991 Revenues
Millions of Dollars

Company Name	Def/Space	Total	Defense Share	Bond Rating
McDonnell Douglas Corp	10,150	18,432	55%	BBB
Lockheed Corp	8,340	9,809	85%	A
General Dynamics Corp	7,400	8,751	85%	A
General Electric Co	7,300	59,379	12%	AAA
General Motors Corp	6,800	122,081	6%	A-
Boeing Co	5,846	29,314	20%	AA
Hughes	5,800	11,700	50%	NA
United Technologies Corp	5,500	21,262	26%	A+
Rockwell Intl Corp	5,200	11,927	44%	AA
Martin Marietta Corp	5,200	6,075	86%	A+
Northrop Corp	5,100	5,694	90%	NA
Raytheon Co	5,000	9,274	54%	AA
Grumman Corp	3,597	3,963	91%	BBB-
Textron Inc	3,423	7,822	44%	BBB
Westinghouse Electric Corp	3,245	12,794	25%	A
TRW Inc	3,111	7,913	39%	A-
Litton Industries Inc	2,450	5,219	47%	A-
Unisys Corp	2,350	8,696	27%	B
Allied Signal Inc	2,213	11,831	19%	A-
Loral Corp	2,170	2,882	75%	BBB+
Texas Instruments Inc	1,890	6,784	28%	A
ITT Corp	1,201	20,421	6%	A+
Alliant TechSystems Inc	1,187	1,187	100%	NA
FMC Corp	1,172	3,899	30%	BBB-
GTE	1,000	19,621	5%	NA

NOTE: Loral figures include LTV acquisition.

Extremely Exposed Defense Contractors: U.S. defense contractors with high defense market exposure (i.e., over 70% of revenue comes from the defense market) include notable names like Northrop, Lockheed, Grumman, Martin Marietta, General Dynamics, Alliant TechSystems and Loral.

Extremely Exposed Defense Contractors
1991 Revenues
Millions of Dollars

Company Name	Def/Space	Total	Share
Alliant TechSystems Inc	1,187	1,187	100%
Grumman Corp	3,597	3,963	91%
Northrop Corp	5,100	5,694	90%
Martin Marietta Corp	5,200	6,075	86%
Lockheed Corp	8,340	9,809	85%
General Dynamics Corp	7,400	8,751	85%
Loral Corp	2,170	2,882	75%

These firms are in the most difficult position of the top 25 defense contractors. In short they have three options: consolidate, divest, or stall for time. All but General Dynamics (GD) have decided to pursue the consolidation strategy; GD is pursing consolidation while positioning itself for likely liquidation. The consolidation strategy will likely result in a smaller, less competitive mix of "dedicated" defense contractors (e.g., there will be fewer missile manufacturers, fewer airframe manufacturers, and fewer ship builders). Each of the firms listed above has accepted the fact that their defense related segments will be smaller economic entities and have been reorganizing to meet this reality.

In general, the plans to become smaller have so far been managed successfully, meaning that the dedicated defense contractors have been able to manage their costs, reduce debt levels and improve their cash flows. The objective has been to survive the next five years, attain a dominant position in key markets and position the firm for the next generation military programs that will eventually be required (albeit in much smaller quantities than before).

Highly Exposed Defense Contractors: In the Highly Exposed category there are a number of well-known defense contractors, such as Hughes, Rockwell, Raytheon and McDonnell Douglas, that have 30-70% of their total revenue attributable to defense sales. McDonnell Douglas is unique among these firms in that its commercial aircraft work accounts for a large portion of its total business, thereby lowering its defense related share of total sales. For comparative purposes, McDonnell Douglas is more like the companies in the Extremely Exposed category than companies in the Highly Exposed category. As a result, its strategy is to focus on core business, reduce debt, manage for cash and divest of non-core business units.

Other than the McDonnell Douglas exception, the companies in the Highly Exposed category are somewhat diversified. In this regard, these firms are better able than they otherwise would be to dilute the impacts from reduced national defense expenditures. Their strategic responses to lower defense spending fall into three groups:

1. use the defense backlog to generate cash for non-defense investment (e.g., Textron);

2. solidify position in key defense markets (e.g., Hughes); and

3. sell defense-related business lines.

Highly Exposed Defense Contractors
1991 Revenues
Millions of Dollars

Company Name	Def/Space	Total	Share
McDonnell Douglas Corp	10,150	18,432	55%
Raytheon Co	5,000	9,274	54%
Hughes	5,800	11,700	50%
Litton Industries Inc	2,450	5,219	47%
Textron Inc	3,423	7,822	44%
Rockwell Intl Corp	5,200	11,927	44%
TRW Inc	3,111	7,913	39%
FMC Corp	1,172	3,899	30%

Moderately Exposed Defense Contractors: In this category are firms deriving 15-30% of their total corporate revenue from defense related contracting. While a number of the companies in this group are well-known defense contractors with a large dollar value of defense generated revenue (e.g., General Electric (GE) - $7 billion, Boeing - $ 5 billion, and United Technologies Corporation - $5 billion), their commercial work represents the primary focus of their strategic business. Because these firms are not too heavily exposed to the defense downturn, they are more inclined to run their defense business segments much the same way as they've been run in the past, while looking for bargain priced acquisitions or, on the other hand, contemplating liquidation of defense assets.

These firms view the defense market has a diversified business that provides positive cash flow, technical advantage and opportunities for selective growth. Their strategy is to:

- manage the business for cash in the near-term;
- acquire defense businesses consistent with their core competencies; and
- divest were they can not gain a competitive edge.

Moderately Exposed Defense Contractors
1991 Revenues
Millions of Dollars

Company Name	Def/Space	Total	Share
Texas Instruments Inc	1,890	6,784	28%
Unisys Corp	2,350	8,696	27%
United Technologies Corp	5,500	21,262	26%
Westinghouse Electric	3,245	12,794	25%
Boeing Co	5,846	29,314	20%
Allied Signal Inc	2,213	11,831	19%
General Electric Co	7,300	59,379	12%

In many ways this group of defense contractors is likely to be the least financially threatened by lower defense spending. Unlike the firms in the Extremely Exposed category, other business units can be used to mitigate lower defense revenues, and unlike Highly Exposed firms, which have a substantially higher defense revenue requirement, they do not need to strip cash from defense segments to support weak commercial operations.

Minimally Exposed Defense Contractors: The three companies in this group are barely exposed to the slowdown in defense expenditures. It should be noted that of General Motors' $6.8 billion of revenue from defense, $5.8 billion is generated by Hughes. The $1 billion of other GM defense business still makes it one of the top U.S. defense contractors. Each of the companies in this group has less then a 10% exposure to defense revenue impacts -- not insignificant but overall a small portion of total corporate activity. While these firms are best able to offset lost defense revenue through other business segment activities, they will likely consider exiting the market all together (especially GM, which needs to raise cash to counter serious financial problems elsewhere in the organization).

Minimally Exposed Defense Contractors
1991 Revenues
Millions of Dollars

Company Name	Def/Space	Total	Share
ITT Corp	1,201	20,421	6%
General Motors Corp	6,800	122,081	6%
GTE	1,000	19,621	5%

CONTRACTOR STRATEGIES: GENERAL FINDINGS

Before each of the 25 defense contractors is individually examined, some general observations regarding their financial outlook and strategic responses to the new defense market are summarized below. For the most part, the following comments pertain to the contractors with the highest share of defense revenue, since these are the companies that are most exposed to the financial pressures stemming from the defense revenue slowdown. The significance of these contractors is enhanced because of the implications to the nation's defense industrial base of their strategic positioning decisions.

This part of the study focuses on the financial impact to defense contractors resulting from reduced U.S. defense expenditures, already underway for half a decade. The five years since 1987 have already seen a significant amount of corporate restructuring and cost cutting in response to the shrinking defense market. While the defense contract backlog that currently exists has sustained many firms during this five year period, the effects of contract terminations and expirations are now being felt. Cost cutting measures have been phased in, sometimes gradually, sometimes rapidly.

Two to three years ago, the conventional wisdom was that the defense industry would undergo disorderly dissolution in the face of rapidly declining defense budgets. Some of the most concerned observers anticipated the permanent disappearance of major defense contracting capabilities as some firms were projected to become financially insolvent.

What is the reality? To answer this question DRI addressed the issues below.

KEY QUESTIONS

Will companies lose their financial viability?

How much of a financial short-fall will they face?

Will they accept the short-fall or attempt to offset it?

What survival strategies will they employ?

Will they diversify, consolidate or disappear?

To what extent will they pursue commercial opportunities?

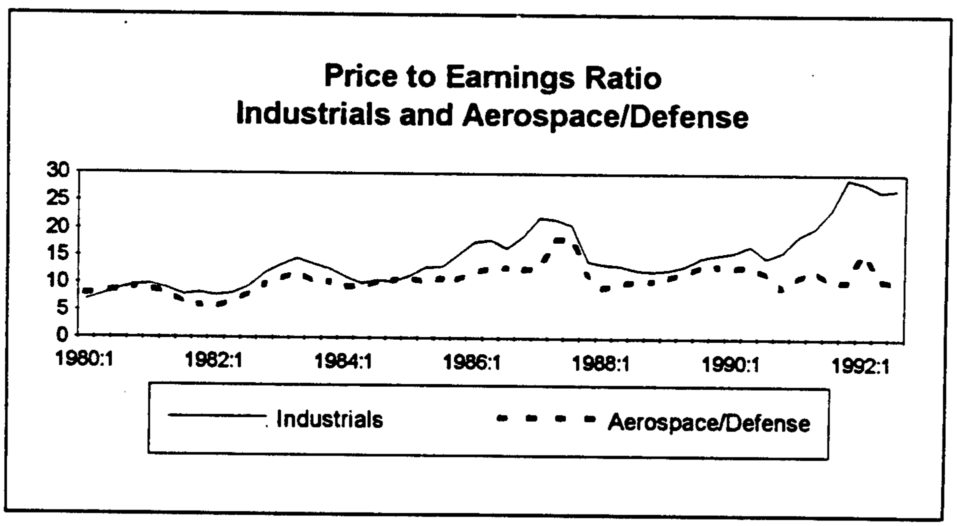
Strategic Company Responses: The senior management at top defense firms views the decline in defense spending as permanent, not cyclical. As a result, their strategic thinking is much different than it would be if they believed this downturn to be temporary rather than structural in nature. Cyclical market behavior is addressed with tactical maneuvers intended to ride out the decline and position the organization for the rebound. On the other hand, structural market change requires a more radical response and a rethinking of long-term strategic direction. Where the structural change is severe, as in the current defense market, the strategic response demands measures that go to the most fundamental issues of survival. This is especially true for defense firms where defense segments have delivered 50% or more of total corporate revenue.

In response to a permanent shrinking of the defense market, the short-term strategy has been to focus on the bottom line, manage for cash, cut costs, reduce payrolls, defer capital spending, slash internally funded R&D, sell non-core businesses, and reduce debt. In general, most defense companies are partially liquidating their defense business base, and for some the liquidation is already well advanced.

Some companies -- most notably General Dynamics, but to a lesser extent Grumman and Martin Marietta -- have raised significant amounts of cash through liquidation and cost cutting measures. The key question from Wall Street investors is "How will this cash be used?" In most cases, the cash will be used to finance acquisitions and thereby facilitate consolidation, while in others it will used to buy back stock and ultimately payoff shareholders.

Wall Street's view of the restructuring is important because of its ability to encourage investors to take a stake in defense companies. A negative view by Wall Street creates difficulty in attracting external financing for acquisitions and capital investment. At present, Wall Street is displaying long-term pessimism toward defense segment growth prospects. The result is threefold: higher rate of return requirements for new defense investment; increased operating margin requirement for defense business segments; and increased pressures for liquidation.

As seen in the figure below, Wall Street is discounting defense stocks. The chart compares the Price-to-Earnings (PE) Ratios of industrial stocks and aerospace/defense stocks. Historically, the two PE Ratios have tracked fairly well. Since late 1990 the PE Ratio of aerospace/defense stocks has not exhibited the same pattern as the industrials. Rather, while the industrial's PE Ratio was moving rapidly upwards, the aerospace/defense PE Ratio was on a gradual downtrend. In short, Wall Street has been discounting the aerospace/defense stocks on a belief that the industry has a bleak future, resulting in weak expectations in the face of current high yields. The Wall Street consensus is that the industry will divest, consolidate and *not* successfully pursue commercial diversification plans.



Commercial Diversification Not A Strategy: For the most part, the management in the defense industry and Wall Street see eye-to-eye with respect to commercial diversification strategies: they will not work.

At firms predominately dependent on defense contracts, corporate culture does not include a thorough understanding of commercial markets. There are fundamental differences between successful pursuit of defense and commercial markets as indicated in the table below.

Whether it is real or imagined there is an ingrained belief that defense companies can not succeed at commercial diversification strategies. No matter its origin or validity its a powerful argument against commercial ventures. Diversification strategies are further constrained at a time when firms must focus on profits and not on growth, dictating a return to core business lines. As a result, commercial diversification is considered a niche strategy and not a fundamental strategy.

Strategies for Managing the Decline: Defense contractors have three primary options, which can be pursued singularly or in combination, for dealing with the defense spending slowdown: (1) aggressive disinvestment; (2) reinforce core business; and (3) delay downsizing/conversion.

Defense vs. Commercial Markets

Defense	**Commercial**
One Customer	Many Customers
High Unit Costs	Cost Efficiency
Precise Specifications	Broad Product Appeal
Low Quantity	Multiple Products/High Production Rates
Customer Pays R&D	Internal Funding of R&D

Aggressive Disinvestment: Firms pursuing this strategy will focus on unbundling large business segments. Once the business segments are neatly divided, individual segments will be sold. If a segment cannot be sold or managed for cash, it will be closed. General Dynamics is most closely following this strategy.

Reinforce Core Business: Here the objective is to focus on core businesses, achieve dominant market share in those markets, and then raise the price of the good produced; to manage the business for cash and profitability; and to survive the downturn and be positioned for strength in the smaller but less competitive market of the future. To support these objectives, firms will pursue acquisition/merger plans as follows:

- acquire if large and financial resources permit;
- joint venture if small or financial resources are limited;
- raise prices;
- only bid on high-probability projects;
- eliminate duplicate R&D efforts; and
- eliminate duplicate manufacturing capacity.

In addition firms will sustain cash via maintenance and service revenues, and pursue smaller niche business opportunities (both defense and commercial).

Delay Downsizing/Conversion: A firm pursuing this strategy will unbundle its defense segments into separate business. Unprofitable niche businesses will be sold or closed. Foreign sales will be aggressively pursued as a short-term maintenance strategy. Where opportunities exist, civilian applications for promising technologies will be conservatively pursued, while the firm recognizes that market rewards will be very slow to emerge. The risks with this strategy are continued losses and missed opportunities. McDonnell Douglas was pursuing this strategy to a large extent over the past two years, before switching to the reinforce core business approach that it now favors.

Conclusions: Because of the long lead time defense contractors have had, and because of their aggressive cost cutting plans, their financial viability is *not* at risk. These companies will increasingly manage for cash at the expense of investment and R&D, solving their problem of low margins. For the most part, they will successfully manage the decline in defense related revenues.

The current defense spending slowdown is viewed as permanent, leading firms to consolidate and specialize, and resulting in fewer competitors in each market segment as companies swap operations. The new paradigm responds to the declining defense market by specializing to achieve critical mass, raising prices and protecting profits. The old paradigm responded to a growing market by pursuing a broad portfolio of defense business segments so that virtually unbounded opportunities could be pursued.

Commercial leveraging of defense-related technologies is a niche strategy and not a fundamental strategy. The defense contractors not currently diversified into commercial markets will not alter their negative view of commercial business opportunities. At the margin they will pursue modest commercial ventures to exploit niche market potential.

INDIVIDUAL COMPANY FINANCIAL OUTLOOKS

McDonnell Douglas Corporation

McDonnell Douglas (MD) is a leader in aerospace and information-related products and services. Its primary markets are commercial aircraft, military aircraft, missiles, space, electronics, and financial services. The company is the largest defense contractor in the United States and the third largest aircraft company in the world. Major defense-related products include the F-15 fighter aircraft, the Apache helicopter, and the Tomahawk and Harpoon missile systems.

MCDONNELL DOUGLAS	
Major Contracts	**Major Subcontracts**
F-15	Advance Launch System
AH-64	Titan IV
T-45	
C-17	
F-18 (60%)	
Tomahawk Missile	
Harpoon/SLAM Missile	

Unfortunately for McDonnell Douglas, production is winding down or terminated on some of the company's more popular products. Upgrades and exports will keep programs like the Apache and the F-18 running through the end of the decade, while the Tomahawk is likely to be affected by arms control agreements. The company's brightest prospects are the T-45 trainer and the C-17 military transport aircraft.

MCDONNELL DOUGLAS Prime Contract Awards (thousands of current dollars)						
	1987	*1988*	*1989*	*1990*	*1991*	*5 YR TOTAL*
Arms and Ordnance	$99,120	$45,689	$83,334	$51,048	$23,501	$302,692
Fire Control Equipment	15,845	86,462	99,594	3,960	3,169	209,030
Missiles and Space Vehicles	778,212	574,650	675,460	292,945	863,537	3,184,804
Aircraft and Equipment	4,578,802	3,984,020	4,490,826	5,616,936	4,424,125	23,094,709
Ships and Equipment	0	0	0	7,689	(36)	7,653
Vehicles and Equipment	0	114	(35)	0	0	79
Engines and Components	704	5,702	906	(141)	1,806	8,977
Electronics and Communications	52,958	25,745	837,469	26,788	64,318	1,007,278
ADP	12,458	5,440	4,745	7,818	3,736	34,197
Other Equipment	51,893	37,620	196,099	93,364	77,061	456,037
RDT&E	1,840,435	3,098,673	2,892,191	3,441,179	1,916,408	13,188,886
Professional Services	192,173	264,784	416,527	353,207	394,717	1,621,408
Maintenance and Modifications	383,858	92,759	73,734	201,855	839,387	1,591,593
Miscellaneous Services	17,194	20,462	5,930	13,759	8,265	65,610
TOTAL	$8,023,652	$8,242,120	$9,776,780	$10,110,407	$8,619,994	$44,772,953

Strategy: Refocus on downsized core defense businesses and improve operating margins. Sell divisions with inadequate margins or market shares. Find a partner for Douglas Aircraft or exit commercial aircraft manufacture. MD Helicopters is intended for joint venture or sale.

McDonnell Douglas previously planned to use defense cash flow to fund civilian aircraft manufacture. Deteriorating commercial prospects have forced a U-turn. Civilian aircraft investment will be de-emphasized, and greater effort will be placed on increasing operating earnings in defense segments. Commercial aircraft will be managed for cash, not growth.

A two year long drought in new orders for Douglas commercial aircraft has undermined management confidence in the commercial aircraft business. Commercial aircraft end-market prospects have been far weaker than anticipated by the company when the recession began in 1990. The MD-11 order backlog has dropped sharply. Unfortunately, production costs have fallen less rapidly than anticipated, and MD-11 program cost estimates were increased earlier this year.

MD has failed to find a partner to finance the MD-12, a $10 billion investment that would produce a new wide body airliner to compete with the Boeing 747. Taiwan Aerospace withdrew from a proposed joint venture last spring. No other partners with sufficiently deep pockets have emerged.

Restructuring: In a restructuring, MD announced that the 6 defense businesses will be consolidated into two groups. Combat Aircraft, Missiles, and Helicopters will comprise one group, with Space Systems, Electronics Systems, and Douglas Military (C-17) in the other. Two elements of the restructuring provide a guide to company intentions:

1. The MD helicopter business is for sale, in whole or as part of a joint venture. Helicopter manufacturing excess capacity is substantial on a global basis. McDonnell Douglas Helicopter Company (MDHC) is likely to prove attractive to a U.S. competitor for the combat business and to domestic and foreign buyers for the commercial business.

2. The C-17 program was shifted from Douglas to a military group.

Douglas is running a weakening third to Boeing and Airbus in global commercial aircraft markets. By the newly announced requirement that core businesses must be number one or number two in their segments, Douglas can now be regarded as "noncore" for the firm. Since DRI sees few buyers for Douglas, we expect the division to be managed for cash, and for MD to exit the commercial aircraft business about the end of the decade.

Military aircraft, including the F-18 programs, the T-45, and the C-17, will form the core of a downsized company. Selected businesses may follow helicopters out of the company where margins are inadequate. DRI expects the C-17 program problems to ultimately be resolved.

Financial Outlook: McDonnell Douglas remains financially weakened. Long-term debt increased in early 1992, from $2.4 billion to $2.8 billion, as MD failed to realize anticipated expense reductions in commercial and defense programs. Aerospace debt to equity stands at 78%, well above industry norms. MD is expected to emulate other downsizing defense companies and generate positive cash flow as capital spending and R&D drop, but this did not occur in 1992. C-17 cost overruns and A-12 program settlement charges are a risk to earnings over the next two years. Cancellation of MD-12 R&D should provide a cash flow boost in 1993.

MCDONNEL DOUGLAS FINANCIAL SUMMARY

SEGMENT REVENUE	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Military Aircraft	5,919	5,830	5,933	7,000	7,000	6,500	6,400	6,300	6,500	6,700	6,700	7,000
Commercial Aircraft	4,741	5,812	8,621	7,000	4,800	4,400	4,200	4,000	4,100	3,900	3,800	3,500
Missiles, Space, Systems	2,736	3,188	2,982	3,000	2,800	2,700	2,550	2,450	2,500	2,550	2,600	2,650
Other	688	455	411	390	350	350	325	330	335	335	340	350
Net Nonfinancial	14,084	15,285	17,947	17,390	14,950	13,950	13,475	13,080	13,435	13,485	13,440	13,500
Financial	497	619	485	330	300	280	260	280	300	320	330	350
Net	14,581	15,904	18,432	17,720	15,250	14,230	13,735	13,360	13,735	13,805	13,770	13,850

EARNINGS MODEL	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Total Net Sales	14,581	15,904	18,432	17,720	15,250	14,230	13,735	13,360	13,735	13,805	13,770	13,850
Cost of goods sold	11,693	12,892	15,267	14,619	12,505	11,669	11,263	10,955	11,263	11,320	11,291	11,357
as a % of Sales	80	81	83	83	82	82	82	82	82	82	82	82
Deprec	487	533	483	416	368	337	313	297	303	303	313	323
SG&A Incl R&D	1,965	2,073	1,589	1,565	1,346	1,256	1,213	1,177	1,209	1,214	1,210	1,215
as a % of Sales	14	14	9	9	9	9	9	9	9	9	9	9
Oper Income	436	406	1,093	1,120	1,031	969	946	930	960	969	956	955
as a % of Sales	3	3	6	6	7	7	7	7	7	7	7	7
Non-operating Inc	12	9	16	15	15	15	15	15	15	15	15	15
EBIT	448	415	1,109	1,135	1,046	984	961	945	975	984	971	970
as a % of Sales	3	3	6	6	7	7	7	7	7	7	7	7
Interest Exp	568	613	485	428	409	395	356	327	326	325	334	339
Special Items	0	600	0	0	0	0	0	0	0	0	0	0
Pretax Income	-120	402	624	707	638	589	605	618	649	659	637	631
Taxes	-83	127	269	272	245	227	233	238	250	254	245	243
Minority Interest	0	0	0	0	0	0	0	0	0	0	0	0
Operating Net	-37	275	355	435	392	362	372	380	399	405	392	388
Special Charges/Gains	256	31	68	-120	0	0	0	0	0	0	0	0
Reported Net Income	219	306	423	315	392	362	372	380	399	405	392	388
Pfd Div	0	0	0	0	0	0	0	0	0	0	0	0
Net for Common	219	306	423	315	392	362	372	380	399	405	392	388
Dividends	105	108	67	67	70	80	80	80	80	80	80	80
Retained Earnings	114	198	356	248	322	282	292	300	319	325	312	308
Share Repurchase	0	0	0	0	0	0	0	0	0	0	0	0

BALANCE SHEET	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Fin Assets	4,623	4,410	3,401	2,310	2,100	1,960	1,820	1,960	2,100	2,240	2,310	2,450
Times Fin Sales	9	7	7	7	7	7	7	7	7	7	7	7
Other Current Assets	5,448	7,310	8,300	7,999	7,027	6,557	6,468	6,278	6,449	6,473	6,451	6,480
%of NonFin Sales	39	48	46	46	47	47	48	48	48	48	48	48
Net Fixed Assets	2,648	2,624	1,891	1,675	1,531	1,425	1,351	1,379	1,376	1,423	1,470	1,507
as a % of Sales	19	17	11	10	10	10	10	11	10	11	11	11
Other Assets	678	621	1,249	2,677	3,285	3,524	3,651	3,817	3,951	4,173	4,418	4,633
Total Assets	13,397	14,965	14,841	14,662	13,943	13,465	13,291	13,434	13,875	14,309	14,649	15,069
Current Liabs	3,419	3,818	4,600	4,434	3,812	3,557	3,436	3,335	3,426	3,439	3,427	3,443
Other nondebt Liabs	1,756	2,049	2,087	2,017	1,734	1,618	1,563	1,517	1,558	1,564	1,559	1,566
Fin Co Debt	2,338	2,614	1,891	1,485	1,350	1,260	1,170	1,260	1,350	1,440	1,485	1,575
Aerospace Debt	2,597	2,970	2,386	2,600	2,600	2,300	2,100	2,000	1,900	1,900	1,900	1,900
Total Liabilities	10,110	11,451	10,964	10,537	9,496	8,735	8,269	8,113	8,234	8,343	8,371	8,484
Stockholder Equity	3,287	3,514	3,877	4,125	4,447	4,729	5,021	5,322	5,641	5,966	6,277	6,586
Preferred Equity	22	21	19	19	19	19	19	19	19	19	19	19
Equity for Common	3,265	3,493	3,858	4,106	4,428	4,710	5,002	5,303	5,622	5,947	6,258	6,567
Total Liabs&Equity	13,397	14,965	14,841	14,662	13,943	13,465	13,291	13,434	13,875	14,309	14,649	15,069
Debt/Capital	44	46	38	39	37	33	29	27	25	24	23	22

OTHER KEY VARIABLE	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Employment, '000	128	121	109	104	91	84	78	74	73	72	70	69
Capital Spending	582	406	204	200	225	230	240	325	300	350	360	360
Net Working Capital	2,029	3,492	3,700	3,565	3,214	2,999	3,032	2,943	3,023	3,034	3,024	3,038
EBITDA	935	948	1,592	1,551	1,415	1,321	1,275	1,243	1,278	1,286	1,284	1,293
Implied free Cash Flow	-215	-934	695	1,058	1,132	911	646	679	572	600	600	581

KEY FIN RATIOS	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
ROE(NET/EQUITY)	0.07	0.09	0.11	0.08	0.09	0.08	0.07	0.07	0.07	0.07	0.06	0.06
ROSales(EBIT/SLS)	0.03	0.03	0.06	0.06	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07
ATO(SLS/ASSETS)	1.09	1.06	1.24	1.21	1.09	1.06	1.03	0.99	0.99	0.96	0.94	0.92
ROA(EBIT/ASSETS)	0.03	0.03	0.07	0.08	0.08	0.07	0.07	0.07	0.07	0.07	0.07	0.06
LEVERAGE (ASS/EQ)	4.10	4.28	3.85	3.57	3.15	2.86	2.66	2.53	2.47	2.41	2.34	2.29
PRETAX/EBIT	-0.27	0.97	0.56	0.62	0.61	0.60	0.63	0.65	0.67	0.67	0.66	0.65
NET/PRETAX	-1.83	0.76	0.68	0.45	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62
PAYOUT RATIO	0.48	0.35	0.16	0.21	0.18	0.22	0.21	0.21	0.20	0.20	0.20	0.21

Note: Debt/Capital Ratio Excludes Fin Co debt

LOCKHEED CORPORATION

Lockheed is a $10 billion aerospace and technology company. Some 85% of sales are to the U.S. government, with 70% of sales to the Department of Defense. Segments include Missiles and Space, Aeronautical Systems, Technology Services, and Electronic Systems. Major future defense revenues are dominated by the F-22 fighter, the Trident II missile, the MILSTAR secure satellite program, and ERIS and THAAD ballistic anti-missile programs. Bond Rating: A. Debt/Capital Ratio: 40%.

LOCKHEED CORPORATION	
Major Contracts	**Major Subcontracts**
F-117	F-18 (electronic warfare)
F-22(34%)	
C-130	
Trident II Missile	
LRAACA (ASW Aircraft)	
MILSTAR satellite	
ERIS (anti-ballistic missile)	
THAAD (anti-ballistic missile)	
GBFEL-TIE (SDI)	

Strategy: Increase market share in defense businesses to sustain the corporate technology base. Increase non-defense business to 40% of revenues. Improve defense business margins. Use excess cash flow to increase shareholder value via share repurchase.

Revenue Prospects: Lockheed is extremely well-positioned to ride out the defense procurement slump. Lockheed's advantage is its best-in-class technology base in stealth aeronautics and in missile systems. DRI sees Lockheed's defense revenues solidly anchored through the reminder of the 1990s by F-22, Trident II and C-130 programs. Lockheed stands to add significant revenues in antiballistic systems. A recent THAAD contract win follows successful ERIS demonstrations of the viability of ground-launched ballistic missile intercept technology for both extended range tactical and strategic applications.

LOCKHEED CORPORATION Prime Contract Awards (thousands of current dollars)						
	1987	*1988*	*1989*	*1990*	*1991*	*5 YR TOTAL*
Arms and Ordnance	$4,247	$39,580	$7,139	$27,839	$21,712	$100,517
Fire Control Equipment	13,191	58,158	30,483	21,652	9,223	132,707
Missiles and Space Vehicles	443,478	1,146,467	1,548,575	1,223,909	815,148	5,177,577
Aircraft and Equipment	2,459,674	531,780	661,669	712,241	175,053	4,540,417
Ships and Equipment	186,048	42,599	1,575	(7,052)	2,727	225,897
Vehicles and Equipment	0	178	0	0	0	178
Engines and Components	196	79	147	155,122	351,512	507,056
Electronics and Communications	216,053	152,132	112,603	96,342	89,251	666,381
ADP	3,962	45,838	3,185	3,519	30,035	86,539
Other Equipment	54,798	75,092	44,748	35,103	47,417	257,158
RDT&E	1,892,314	946,759	1,015,522	1,603,599	610,310	6,068,504
Professional Services	236,896	291,298	293,963	374,130	330,530	1,526,817
Maintenance and Modifications	937,060	989,001	857,834	767,344	941,484	4,492,723
Miscellaneous Services	19,293	12,653	12,662	5,250	11,447	61,305
TOTAL	$6,467,210	$4,331,614	$4,590,105	$5,018,998	$3,435,849	$23,843,776

Margins have improved. F-22 cost-sharing for F-22 development are behind the firm. Aggressive restructuring of divisions and some selected business sales have also helped. Capital spending has slowed. Free cash flow has been strongly positive for the past two years.

Lockheed is also a major NASA contractor, and we see total NASA procurement revenues increasing slightly over the decade. Civilian programs build on Lockheed's space technologies. Lockheed is partnered with Motorola in a proposed global cellular telephone satellite system.

Acquisitions: Lockheed is clearly acquisition-minded. A Lockheed/Martin-Marietta team was narrowly beat out for the LTV missile business. Pending final approval, Lockheed is the favored candidate to buy the General Dynamics tactical aircraft business. This business includes F-16 cash flow and one third of the F-22 business. Possible prices for this segment are in the $1 billion range. If GD held out for cash, Lockheed would be forced to suspend share repurchase plans and increase debt. A joint venture with Boeing (the other F-22 partner) would be far easier to accept financially.

Risks: Lockheed faces significant diversification risks as it seeks to apply aerospace technologies to civilian applications. Capital spending may increase by more than DRI forecasts in this pursuit, and margins may decline. We believe that limited revenue growth with higher margins is the preferred management strategy.

LOCKHEED FINANCIAL SUMMARY

SEGMENT REVENUE	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Missiles and Space	4,780	5,116	4,859	4,500	4,600	4,700	4,800	4,900	5,200	5,250	5,300	5,400
Aeronautical	2,572	2,329	2,204	2,400	2,350	2,750	2,800	2,950	3,160	3,200	3,300	3,400
Technology services	1,432	1,550	1,624	1,700	1,800	1,850	1,900	1,975	2,050	2,150	2,200	2,200
Electronic Systems	1,107	963	1,122	1,100	1,100	1,150	1,150	1,200	1,225	1,270	1,300	1,350
Eliminations	0	0	0	0	0	0	0	0	0	0	0	0
Net	9,891	9,958	9,809	9,700	9,850	10,450	10,650	11,025	11,635	11,870	12,100	12,350

EARNINGS MODEL	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Total Net Sales	9,891	9,958	9,809	9,700	9,850	10,450	10,650	11,025	11,635	11,870	12,100	12,350
Cost of goods sold	9,110	9,078	8,949	8,779	8,914	9,510	9,692	10,033	10,588	10,802	11,011	11,239
as a % of Sales	92	91	91	91	91	91	91	91	91	91	91	91
Deprec	328	319	284	303	307	312	318	326	335	346	357	369
SG&A Incl R&D	0	0	0	0	0	0	0	0	0	0	0	0
as a % of Sales	0	0	0	0	0	0	0	0	0	0	0	0
Oper Income	453	561	576	618	629	629	641	667	712	722	732	743
as a % of Sales	5	6	6	6	6	6	6	6	6	6	6	6
Non-operating Inc	3	14	34	35	35	35	34	33	33	33	33	33
EBIT	456	575	610	653	664	664	675	700	745	755	765	776
as a % of Sales	5	6	6	7	7	6	6	6	6	6	6	6
Interest Exp	86	138	118	149	131	131	135	137	140	140	144	144
Special Items	-410	-7	-18	0	0	0	0	0	0	0	0	0
Pretax Income	-40	430	474	504	533	533	540	562	605	616	621	632
Taxes	-46	95	166	177	187	187	189	197	212	215	217	221
Minority Interest	0	0	0	0	0	0	0	0	0	0	0	0
Operating Net	6	335	308	328	347	347	351	365	393	400	403	411
Special Charges/Gains	-4	0	0	0	0	0	0	0	0	0	0	0
Reported Net Income	2	335	308	328	347	347	351	365	393	400	403	411
Pfd Div	0	0	0	0	0	0	0	0	0	0	0	0
Net for Common	2	335	308	328	347	347	351	365	393	400	403	411
Dividends	109	114	122	125	129	132	135	142	148	154	160	165
Retained Earnings	-107	221	186	203	218	215	216	223	245	246	243	246
Share Repurchase	328	0	25	80	80	80	80	80	80	90	90	90

BALANCE SHEET	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Current Assets	3,398	3,578	3,350	3,298	3,349	3,553	3,621	3,859	4,072	4,155	4,235	4,323
as a % of Sales	34	36	34	34	34	34	34	35	35	35	35	35
Net Fixed Assets	1,903	1,859	1,839	1,861	1,889	1,927	1,974	2,033	2,098	2,167	2,234	2,316
as a % of Sales	19	19	19	19	19	18	19	18	18	18	18	19
Other Assets	1,491	1,423	1,428	1,726	1,830	1,955	2,062	2,048	2,121	2,248	2,323	2,387
Total Assets	6,792	6,860	6,617	6,884	7,068	7,435	7,657	7,940	8,291	8,569	8,793	9,025
Current Liabs	2,895	2,622	2,713	2,959	3,004	3,187	3,248	3,363	3,549	3,620	3,691	3,767
St Debt	41	65	252	150	150	150	150	150	150	150	150	150
Long-Term Debt	1,835	1,929	1,401	1,300	1,300	1,350	1,375	1,400	1,400	1,450	1,450	1,450
Other incl Def Tax	0	0	0	0	0	0	0	0	0	0	0	0
Total Liabilities	4,730	4,551	4,114	4,259	4,304	4,537	4,623	4,763	4,949	5,070	5,141	5,217
Stockholder Equity	2,062	2,309	2,503	2,626	2,763	2,898	3,034	3,177	3,343	3,499	3,652	3,808
Preferred Stock	0	0	0	0	0	0	0	0	0	0	0	0
Equity for Common	2,062	2,309	2,503	2,626	2,763	2,898	3,034	3,177	3,343	3,499	3,652	3,808
Total Liabs&Equity	6,792	6,860	6,617	6,884	7,068	7,435	7,657	7,940	8,291	8,569	8,793	9,025
LT Debt/Capital	48	46	40	36	34	34	33	33	32	31	30	30

OTHER KEY VARIABL	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Employment, '000	83	73	72	69	68	70	69	69	71	70	69	68
Capital Spending	399	340	312	325	335	350	365	385	400	415	425	450
Net Working Capital	503	956	637	340	345	366	373	496	524	534	545	556
EBITDA	784	894	894	957	971	976	993	1,025	1,080	1,101	1,122	1,145
Implied free Cash Flow(	-516	416	464	483	505	495	493	503	541	547	553	551

KEY FIN RATIOS	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
ROE(NET/EQUITY)	0.00	0.15	0.12	0.12	0.13	0.12	0.12	0.12	0.12	0.11	0.11	0.11
ROSales(EBIT/SLS)	0.05	0.06	0.06	0.07	0.07	0.06	0.06	0.06	0.06	0.06	0.06	0.06
ATO(SLS/ASSETS)	1.46	1.45	1.48	1.41	1.39	1.41	1.39	1.39	1.40	1.39	1.38	1.37
ROA(EBIT/ASSETS)	0.07	0.08	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09
LEVERAGE (ASS/EQ)	3.29	2.97	2.64	2.62	2.56	2.57	2.52	2.50	2.48	2.45	2.41	2.37
PRETAX/EBIT	-0.09	0.75	0.78	0.77	0.80	0.80	0.80	0.80	0.81	0.82	0.81	0.81
NET/PRETAX	-0.05	0.78	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65
PAYOUT RATIO	54.50	0.34	0.40	0.38	0.37	0.38	0.38	0.39	0.38	0.38	0.40	0.40

GENERAL DYNAMICS CORPORATION

General Dynamics (GD) is a diverse defense and aerospace contractor. In addition to military aircraft, the company designs and manufactures submarines, tanks and land vehicles, gun systems, space systems and various electronic products. The two programs which can expect the most funding, especially in the area of RDT&E, are the F-16 and the F-22 fighter aircraft. The SX-3, or FS-X, is a safe program due to the extreme interest of the Japanese.

General Dynamics Major Contracts
F-16
F-22 (33%)
M1 Tank
Trident Submarine
Seawolf Submarine

GENERAL DYNAMICS
Prime Contract Awards (thousands of current dollars)

	1987	1988	1989	1990	1991	5 YR TOTAL
Arms and Ordnance	$468,193	$140,035	$46,596	$107,665	$94,897	$857,386
Fire Control Equipment	64,990	45,494	15,318	4,390	6,481	136,673
Missiles and Space Vehicles	1,008,180	1,081,150	661,518	360,058	654,901	3,765,807
Aircraft and Equipment	2,576,125	2,276,975	2,249,559	2,778,983	2,751,558	12,633,200
Ships and Equipment	974,407	1,201,744	2,073,313	877,804	913,664	6,040,932
Vehicles and Equipment	971,202	828,091	167,086	580,379	1,128,665	3,675,423
Engines and Components	2,277	717	940	(114)	437	4,257
Electronics and Communications	108,985	105,489	79,637	61,238	91,047	446,396
ADP	5,010	2,889	3,600	7,963	15	19,477
Other Equipment	78,313	34,655	21,973	124,480	121,278	380,699
RDT&E	336,411	442,251	1,207,355	633,063	423,020	3,042,100
Professional Services	445,551	334,535	392,669	544,578	308,478	2,025,811
Maintenance and Modifications	203,735	124,634	129,562	128,245	95,186	681,362
Miscellaneous Services	79,081	52,427	63,082	27,252	17,015	238,857
TOTAL	$7,322,460	$6,671,086	$7,112,208	$6,235,984	$6,606,642	$33,948,380

Strategy: Liquidate the firm. Maximize near-term shareholder value by divesting high value divisions. The emergence of Berkshire Hathaway as the majority shareholder in GD this summer marks a second and more aggressive stage in the liquidation of the company. GD is reportedly talking to Boeing and Lockheed (its partners in the F-22 program) over the sale of GD's combat aircraft business. In revenue terms, this is one half of GD's "core". A compilation of analyst reports suggests that virtually every division of the firm has been shopped to potential buyers this year. Management denies this but DRI is convinced that GD is being liquidated.

If consummated, sale of the combat aircraft division will mark a second stage in the liquidation of the firm. Previously, GD management articulated a strategy of retaining four core defense businesses and divesting other elements of the company. Of these "core four" ,Combat Aircraft has the highest value, since it combines high current margins with substantial future potential revenues via GD's share in F-22 business. Major segment sales to date include Cessna (1991) and the Missile division (to GM-Hughes this year).

Major Divestitures:

- Cessna to Textron (1991-92)
- Information Technology (1991)
- Missile Division to Hughes (1992)
- Convair (intended)
- Material Resources (intended)
- Electronics (intended)
- Combat Aircraft to Lockheed (not final)

Restructuring: The company seeks increased profitability on a reduced business base. One year ago, management announced its intention to sell all non-core businesses, retaining four core defense businesses in which it planned to be the number one or number two producer. One element of the strategy is a sell-off of noncore businesses. This has proceeded briskly this year, with major segment sales of Cessna and the Missile Division. The Convair MD-11 fuselage business, material resources, and electronics businesses are for sale.

The second element of the business strategy is to manage the remaining defense businesses for cash. Tank production is to be concentrated in Ohio, and employment is to be sharply reduced at the Forth Worth combat aircraft facilities. Actual production schedules and the pace of downsizing is to be determined by the pace of foreign sales. Recent sales of tanks to Saudi Arabia and Kuwait and of F-16's to Taiwan will slow the pace of production cuts.

GD management has slashed capital and R&D spending. Capital spending dropped from $306 million in 1990 to $82 million in 1991. Depreciation will exceed capital spending by over $200 million in 1992.

As a prime contractor, GD faces the inevitable rundown of F-16 sales, despite recent foreign contract wins. GD is a member of the winning F-22 team , and F-22 RDT&E revenues will average some $2 billion per year to the team. GD is also a member of one of the AX partnerships. Sale of the aircraft business to either Lockheed or Boeing will complicate AX bids, since both firms are members of the competing AX team (with Grumman). Northrop and Grumman are also potential buyers but lack the financial resources of a Boeing.

Launch systems is an attractive divestiture candidate, since revenue growth prospects are better than current margins.

GD will be left with the Land Systems, Submarines, and Launch Systems. GD will be a $3 billion company on its way to being a $2.5 billion company. Land Systems may be sold to FMC, or combined with FMC's armor division in a joint venture and subsequently sold.

Revenue Prospects: Long-term debt has dropped from over $1 billion to $165 million in the past two years. The abrupt curtailment of capital spending and an aggressive pace of divisional sales enabled GD to sharply reduce outstanding long-term debt, while repurchasing some 30% of outstanding common equity this year.

Near-term cash flow may exceed $1.5 billion in 1992-93. Long-term future flow should run at $400-500 million per year for the foreseeable future on a smaller business base.

Of the four core businesses, submarines, tanks and combat aircraft have good margins but will experience shrinking revenues through the end of the century. Sustained earnings improvement will be difficult in these segments. The launch systems segment should experience higher sales, but the segment is very competitive and margins are poor. GD is a member of the F-22 team, and will benefit thereby, and is a partner in AX development bids.

Financial Outlook: Liquidation will produce near-term cash of $1 billion if Combat Aircraft is retained, $2 billion if Combat Aircraft is sold.

This cash pile exists despite repurchase of 30% of the company's stock this summer. The residual company can be debt-free if it wishes.

The following financial forecast assumes retention of the four core segments. It is intended to reflect the General Dynamics that exists today.

GENERAL DYNAMICS FINANCIAL SUMMARY

SEGMENT REVENUE	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Military Aircraft	3,615	3,661	2,719	3,000	2,900	2,600	2,400	2,300	2,300	2,300	2,500	2,700
Submarines	1,679	1,731	1,803	1,700	1,600	1,500	1,400	900	900	600	500	500
Land Systems	1,054	1,072	1,112	1,000	900	800	600	400	400	400	400	400
Space Systems	288	297	363	450	550	600	650	700	750	750	750	750
Net Continuing Ops	6,636	6,761	5,997	6,150	5,950	5,500	5,050	4,300	4,350	4,050	4,150	4,350
Other	956	1,101	1,369	800								
Missile Systems	1,850	1,595	1,385									
General Aviation	601	716										

EARNINGS MODEL	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Total Net Sales	10,042	10,173	8,751	6,150	5,950	5,500	5,050	4,300	4,350	4,050	4,150	4,350
Cost of goods sold	9,099	10,640	8,059	5,658	5,474	5,060	4,646	3,999	4,046	3,767	3,860	4,046
as a % of Sales	91	105	92	92	92	92	92	93	93	93	93	93
Deprec	360	344	300	185	159	137	119	105	94	88	83	82
SG&A Incl R&D	0	0	0	0	0	0	0	0	0	0	0	0
as a % of Sales	0	0	0	0	0	0	0	0	0	0	0	0
Oper Income	583	-811	392	307	317	303	285	196	210	195	207	223
as a % of Sales	6	-8	4	5	5	6	6	5	5	5	5	5
Non-operating Inc	-41	-105	18	25	0	0	0	0	0	0	0	0
EBIT	542	-916	410	332	317	303	285	196	210	195	207	223
as a % of Sales	5	-9	5	5	5	6	6	5	5	5	5	5
Interest Exp	94	72	58	30	15	11	11	10	10	11	11	11
Special Items	0	0	-21	0	0	0	0	0	0	0	0	0
Pretax Income	448	-988	331	302	302	293	274	186	200	184	197	212
Taxes	155	-349	-43	97	97	94	88	60	64	59	63	68
Minority Interest	0	0	0	0	0	0	0	0	0	0	0	0
Operating Net	293	-639	374	205	205	199	186	126	136	125	134	144
Special Charges/Gains	0	61	131	0	0	0	0	0	0	0	0	0
Reported Net Income	293	-578	505	205	205	199	186	126	136	125	134	144
Pfd Div	0	0	0	0	0	0	0	0	0	0	0	0
Net for Common	293	-578	505	205	205	199	186	126	136	125	134	144
Dividends	42	41	42	42	42	42	42	42	42	42	42	42
Retained Earnings	251	-619	463	163	163	157	144	84	94	83	92	102
Share Repurchase	14	2	0	900	500	500	300	0	0	0	0	0

BALANCE SHEET	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Current Assets	3,990	3,927	4,319	2,460	2,321	2,145	1,919	1,634	1,610	1,458	1,494	1,653
as a % of Sales	40	39	49	40	39	39	38	38	37	36	36	38
Net Fixed Assets	1,900	1,650	1,029	884	760	663	584	524	489	461	453	462
as a % of Sales	19	16	12	14	13	12	12	12	11	11	11	11
Other Assets	659	996	859	325	128	-109	-136	16	187	339	440	448
Total Assets	6,549	6,573	6,207	3,669	3,208	2,698	2,366	2,173	2,286	2,258	2,387	2,563

Current Liabs	2078	2918	3109	1784	1726	1595	1465	1247	1262	1175	1204	1262
St Debt	282	81	516	8	12	15	15	15	25	25	25	25
Long-Term Debt	906	900	365	150	100	100	90	90	90	90	90	90
Other incl Def Tax	1439	1245	753	492	476	440	404	344	348	324	332	348
Total Liabilities	4423	5063	4227	2426	2302	2135	1959	1681	1700	1589	1626	1700
Stockholder Equity	2126	1510	1980	1243	907	563	408	492	586	670	761	864
Equity for Common	2126	1510	1980	1243	907	563	408	492	586	670	761	864
Total Liabs&Equity	6549	6573	6207	3669	3208	2698	2366	2173	2286	2258	2387	2563
LT Debt/Capital	36	39	31	11	11	17	20	18	16	15	13	12

OTHER KEY VARIABLE	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Employment, '000	102	98	75	33	31	28	31	30	28	28	27	27
Capital Spending	419	321	82	40	35	40	40	45	60	60	75	90
Net Working Capital	1,912	1,009	1,210	677	595	550	455	387	348	284	291	392
EBITDA	902	-572	710	517	476	440	404	301	305	284	291	305
Implied free Cash Flow(E	67	1,292	-1,166	1,083	529	471	485	421	285	299	206	104

KEY FIN RATIOS	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
ROE(NET/EQUITY)	0.138	-0.383	0.255	0.165	0.226	0.353	0.457	0.257	0.232	0.187	0.176	0.167
ROSales(EBIT/SLS)	0.054	-0.090	0.047	0.054	0.053	0.055	0.056	0.046	0.048	0.048	0.050	0.051
ATO(SLS/ASSETS)	1.533	1.548	1.410	1.676	1.855	2.038	2.134	1.979	1.903	1.793	1.739	1.697
ROA(EBIT/ASSETS)	0.083	-0.139	0.066	0.090	0.099	0.112	0.120	0.090	0.092	0.087	0.087	0.087
LEVERAGE (ASS/EQ)	3.080	4.353	3.135	2.951	3.539	4.789	5.805	4.416	3.899	3.372	3.135	2.968
PRETAX/EBIT	0.827	1.079	0.807	0.910	0.953	0.965	0.962	0.949	0.953	0.944	0.947	0.951
NET/PRETAX	0.654	0.585	1.526	0.680	0.680	0.680	0.680	0.680	0.680	0.680	0.680	0.680
PAYOUT RATIO	0.14	-0.07	0.08	0.20	0.20	0.21	0.23	0.33	0.31	0.33	0.31	0.29

Note: Net Sales in 1989 and 1990 include Cessna
Missiles sold to GM-Hughes 1992

GENERAL ELECTRIC COMPANY

General Electric (GE) is a $60 billion diversified manufacturer of electrical equipment and related products and services. Major business segments include aerospace, aircraft engines, major appliances, broadcasting (NBC), industrial (locomotives, motors, lighting), materials (plastics), power systems, and technical products (medical services). GE owns GE Financial Services, which has finance (GE Capital), insurance and broker-dealer (Kidder-Peabody) divisions. Book assets in 1991 were $168 billion. GE debt is AAA rated. The Parent company's debt/capital ratio was 16% in early 1991.

GENERAL ELECTRIC COMPANY	
Major Contracts	**Major Subcontracts**
Aircraft Engines (F/A-18, F-15, B-2)	F/A-18 (communications)
MH-60G Helicopter	F-15 (electronic warfare, controls)
Global Positioning System (GPS)	F-16 (controls)
Phalanx Close -in Weapon System	AH-64 (communications, controls)
	C-17 (controls)
	F-117 (engines)
	C-130 (displays and instruments, radar)

GE is one of the financially strongest companies in the world. In recession-impacted 1991, the company earned $4.2 billion before charges for a change in pension accounting. Pretax income was $6 billion. The company has been historically well managed, with above-average earnings growth from its portfolio of businesses.

GE Aerospace is a major government contractor, with strengths in satellites, electronics, aircraft radars, and the Aegis naval defense system. Orders have been adversely affected by defense procurement cutbacks, leading to substantial employment reductions in 1990-92. Aerospace segment business will be supported by a substantial communications satellite business through the 1990s.

GENERAL ELECTRIC Prime Contract Awards (thousands of current dollars)						
	1987	1988	1989	1990	1991	5 YR TOTAL
Arms and Ordnance	$59,224	$801,571	$490,579	$678,713	$424,914	$2,455,001
Fire Control Equipment	348,919	(52,426)	90,376	40,124	3,073	430,066
Missiles and Space Vehicles	333,134	268,216	315,649	231,949	133,296	1,282,244
Aircraft and Equipment	55,669	105,161	86,340	25,307	22,895	295,372
Ships and Equipment	68,151	3,046	391	39,463	50,303	161,354
Vehicles and Equipment	100,107	78,366	135,663	101,502	98,762	514,400
Engines and Components	1,887,180	1,658,649	1,758,041	2,034,014	1,252,615	8,590,499
Electronics and Communications	598,565	876,239	888,755	626,965	999,711	3,990,235
ADP	8,371	4,523	4,161	12,139	7,365	36,559
Other Equipment	460,648	430,192	304,147	301,586	100,156	1,596,729
RDT&E	1,171,312	1,112,072	1,215,647	1,314,425	958,797	5,772,253
Professional Services	888,395	713,499	990,563	786,968	1,045,723	4,425,148
Maintenance and Modifications	144,113	222,260	147,136	231,957	90,660	836,126
Miscellaneous Services	346,973	157,223	125,330	120,986	117,130	867,642
TOTAL	$6,470,761	$6,378,591	$6,552,778	$6,546,098	$5,305,400	$31,253,628

Aircraft Engines will see reduced combat jet procurement, but is well positioned in the commercial air travel arena via the CFM joint venture with SNECMA. GE/CFM engines power Boeing, Airbus and McDonnell Douglas planes.

Strategy: Suspend share repurchase to preserve AAA rating. Accelerate move into smaller, higher growth markets (plastics, medical equipment). Emphasize foreign markets (Asian power generation).

GE Capital: Investor concerns about GE center on the risks at GE Capital. GE Capital has been an aggressive purchaser of other financial business portfolios in recent years, and some analysts have expected GE Capital's portfolio to deteriorate. However, the finance subsidiary has been a strong contributor to net income in 1991 and 1992, and as of midyear, its troubled assets totaled only $1.5 billion. GE Capital's asset base is dominated by lease finance receivables, which have not suffered the type of losses as real estate and highly leveraged transaction loans. More optimistic analysts have noted that GE Capital bought $6 billion in outside assets in 1991, many at recession-depressed prices. These assets have apparently increased in value substantially.

Revenue Prospects: GE revenues have stalled in several important business segments in 1992, the result of defense cutbacks and the effect of recession on capital goods end-markets. Broadcast segment revenues have been hard hit by cable TV competition for media advertising dollars. Media advertising has also been reduced by recessionary conditions in the

U.S. GE management is accelerating the company's pursuit of market share in smaller markets such as medical equipment and plastics, including auto plastics. Top management has targeted infrastructure needs in developing economies (India, China, Indonesia) as a major corporation objective. DRI sees GE revenue growth accelerating in 1993-94 as the company's primary capital goods markets revive in the industrialized countries.

Risks: The biggest risk to GE is the potential for additional asset write-offs at GE Capital. We believe that write-offs are likely in the aircraft lease portion of the portfolio (GE Polaris). GE is unusually well managed, judging by past experience, but new market penetration may reduce operating margins until experience is gained. Also, industrial country capital goods orders may not revive as rapidly as management expects. All of these risks will merely act to slow earnings growth. We expect GE to remain one of the financially strongest companies in the world.

GENERAL ELECTRIC FINANCIAL SUMMARY

SEGMENT REVENUE	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Broadcasting	3,391	3,236	3,120	3,200	3,300	3,450	3,600	3,725	3,900	4,000	4,200	4,400
Aircraft Engine	6,794	7,488	7,816	7,900	8,200	8,450	8,800	9,200	9,700	10,300	10,900	11,500
Aerospace	5,205	5,545	5,247	5,100	5,150	5,200	5,200	5,300	5,400	5,500	5,700	5,900
Appliance	5,620	5,706	5,451	5,500	5,700	6,000	6,300	6,600	6,900	7,250	7,600	8,000
Materials	4,896	5,113	4,695	4,700	4,800	5,200	5,400	5,700	6,000	6,330	6,700	7,100
Technical	4,351	4,565	4,992	5,100	5,500	5,800	6,100	6,400	6,800	7,100	7,500	7,900
Power	5,001	5,644	6,029	6,500	7,000	7,200	7,700	8,200	8,700	9,200	9,800	10,000
Industrial Products	6,358	6,449	6,651	6,700	6,900	7,200	7,500	7,800	8,100	8,500	8,900	9,400
Divested and other	0	0	0	0	0	0	0	0	0	0	0	0
Net Nonfinancial	41,616	43,746	44,001	44,700	46,550	48,500	50,600	52,925	55,500	58,180	61,300	64,200
Financial	7,333	9,000	10,069	10,500	11,250	12,000	12,900	13,600	14,400	15,300	16,300	17,200
Insurance	5,931	6,049	6,600	7,200	7,900	8,600	9,500	10,000	10,600	11,200	11,700	12,400
Eliminations	996	1,133	1,291	1,104	1,156	1,210	1,270	1,331	1,398	1,470	1,552	1,628
Net	53,884	57,662	59,379	61,296	64,544	67,890	71,730	75,195	79,102	83,210	87,748	92,172

BALANCE SHEET	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Current Assets	4,534	4,734	4,834	4,997	5,578	5,681	5,868	5,993	6,159	6,345	6,408	6,615
as a % of Sales	41	41	42	42	42	42	42	42	42	42	42	42
Net Fixed Assets	2,992	3,354	3,409	3,497	3,653	3,795	3,938	4,072	4,205	4,340	4,459	4,586
as a % of Sales	27	29	30	29	27	28	28	28	28	28	29	29
Other Assets	4,674	4,640	4,688	4,816	5,376	5,476	5,656	5,776	5,936	6,116	6,176	6,376
Total Assets	12,200	12,728	12,931	13,310	14,607	14,952	15,462	15,840	16,299	16,801	17,043	17,577
Current Liabs	3,217	3,360	3,285	3,492	3,898	3,970	4,101	4,188	4,304	4,434	4,478	4,623
St Debt	668	711	703	708	822	837	864	880	905	930	940	965
Long-Term Debt	251	272	147	250	280	300	320	350	375	390	400	400
Other incl Def Tax	834	997	1,281	1,107	1,625	1,525	1,466	1,297	1,166	1,053	764	653
Total Liabilities	4,302	4,629	4,713	4,848	5,802	5,795	5,887	5,835	5,845	5,877	5,642	5,675
Stockholder Equity	7,898	8,098	8,218	8,462	8,804	9,157	9,575	10,006	10,454	10,924	11,401	11,902
Total Liabs&Equity	12,200	12,727	12,931	13,310	14,607	14,952	15,462	15,840	16,299	16,801	17,043	17,577
LT Debt/Capital	0.02	0.02	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02

OTHER KEY VARIABL	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Employment, '000	94	95	93	92	94	94	94	94	95	95	95	95
Capital Spending	649	884	681	722	806	821	848	866	890	917	926	956
as a % of Sales	0.058	0.076	0.059	0.060	0.060	0.060	0.060	0.060	0.060	0.060	0.060	0.060

KEY FIN RATIOS	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
ROE(NET/EQUITY)	0.08	0.07	0.05	0.06	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07
ROSales(EBIT/SLS)	0.10	0.10	0.06	0.07	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08
ATO(SLS/ASSETS)	0.92	0.91	0.89	0.90	0.92	0.92	0.91	0.91	0.91	0.91	0.91	0.91
ROA(EBIT/ASSETS)	0.09	0.09	0.06	0.07	0.07	0.07	0.08	0.08	0.08	0.08	0.08	0.08
LEVERAGE (ASS/EQ)	1.54	1.57	1.57	1.57	1.66	1.63	1.61	1.58	1.56	1.54	1.49	1.48
PRETAX/EBIT	0.91	0.94	0.91	0.92	0.92	0.92	0.93	0.92	0.92	0.92	0.92	0.92
NET/PRETAX	0.64	0.56	0.65	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64

EARNINGS MODEL	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Total Net Sales	53,884	57,662	59,379	61,296	64,544	67,890	71,730	75,195	79,102	83,210	87,748	92,172
Cost of goods sold	33,278	35,703	36,892	37,942	39,695	41,413	43,755	45,869	48,252	50,758	53,526	56,225
as a % of Sales	62	62	62	62	62	61	61	61	61	61	61	61
Deprec	2,256	2,508	2,832	3,226	3,528	3,812	4,082	4,357	4,636	4,919	5,205	5,493
SG&A Incl R&D	6,662	6,582	6,600	6,705	6,983	7,275	7,590	7,939	8,325	8,727	9,195	9,630
as a % of Sales	16	15	15	15	15	15	15	15	15	15	15	15
Oper Income	11,688	12,869	13,055	13,423	14,339	15,390	16,303	17,030	17,889	18,806	19,822	20,824
as a % of Sales	22	22	22	22	22	23	23	23	23	23	23	23
Non-operating Inc	911	904	957	1,000	1,060	1,110	1,160	1,220	1,280	1,340	1,400	1,480
EBIT	12,599	13,773	14,012	14,423	15,399	16,500	17,463	18,250	19,169	20,146	21,222	22,304
as a % of Sales	23	24	24	24	24	24	24	24	24	24	24	24
Interest Exp	6,812	7,544	7,504	7,823	8,381	8,940	9,611	10,132	10,728	11,399	12,144	12,814
Special Items	0	0	0	0	0	0	0	0	0	0	0	0
Pretax Income	5,787	6,229	6,508	6,600	7,018	7,560	7,852	8,118	8,441	8,747	9,078	9,490
Taxes	1,764	1,844	2,001	2,046	2,176	2,344	2,434	2,517	2,617	2,712	2,814	2,942
Minority Interest	84	82	72	70	70	70	70	70	70	70	70	70
Operating Net	3,939	4,303	4,435	4,484	4,773	5,147	5,348	5,532	5,754	5,966	6,194	6,478
Special Charges/Gains	0	0	-1,799	0	0	0	0	0	0	0	0	0
Reported Net Income	3,939	4,303	2,636	4,484	4,773	5,147	5,348	5,532	5,754	5,966	6,194	6,478
Dividends	1,479	1,678	1,780	1,794	1,909	2,059	2,139	2,213	2,302	2,386	2,478	2,591
Retained Earnings	2,460	2,625	856	2,691	2,864	3,088	3,209	3,319	3,452	3,579	3,716	3,887
Share Repurchase	490	2,485	1,112	1,000	1,100	1,200	1,300	1,400	1,600	1,800	2,000	2,000

Nonrecurring special charge in 1991 for FASB 106

GENERAL MOTORS CORPORATION

General Motors (GM) is the largest auto manufacturing company in the world. Major divisions include North American Autos, European autos (GM-Opel), Electronic Data Systems (EDS), GM-Hughes (Hughes Aircraft), and General Motors Acceptance Corporation. GM bonds are A-rated, but are subject to downgrade.

GM Hughes Electronics Corporation	
Major Contracts	**Major Subcontracts**
AAAM (Advanced Air to Air Missile)	F/A-18 (radar)
FOG-M (Fiber Optic Guided Missile)	F-15 (radar)
Mk 48 ADCAP (torpedo)	AH-64 (radar)
MIMIC (Integrated Circuit)	C-17 (electronics)
Aries (Anti-armor missile)	F-16 (weapons control/targeting)
AIM-120 AMRAAM (Air-to-Air Missile)	F-22 (controls)
BGM-71 TOW (Anti-armor missile)	UH-60 (radar)
	B-2 (radar)
	RAH-66 (engines)
	C-130 (radar)
	F-14 (radar)
	V-22 (radar)
	E-3 (communications, navigation)
	MIM-104 Patriot (guidance)
	RIM-7 (fire control)
	Titan IV (guidance)
	Trident II (guidance)

GM's defense business is largely conducted by its Hughes division. GM also is a major supplier of military vehicles and engines. GM's Allison gas turbine division is for sale, and is treated as a discontinued operation.

Strategy: Fundamentally restructure the North American Auto division. Consolidate model platform divisions from six to four. Drastically reduce vertical integration in vehicle assembly. Sell the bulk of the components divisions. Break the link between component and assembler compensation. Seek health care benefit give-backs. Cut white collar corporate staff sharply. Cut the dividend to preserve cash. Sell Hughes and EDS if necessary. Consider discontinuing Oldsmobile.

GM's North American auto business has gradually become fundamentally uncompetitive with either Japanese producers or its domestic competitors. Ford and Chrysler are substantially lower cost producers, and have much shorter time-to-market for new models. As a result, GM has lost margin and market share. The recession has devastated GM's financial position. Losses totaled $2 billion in 1990 and $4 billion in 1991. Losses in the first nine months of 1992 totaled $970 million. Fourth quarter net income is seasonally positive, so DRI looks for GM to lose less than $1 billion on a consolidated basis in 1992. However, GM's cash position is eroding. On some assumptions, GM could see its cash reach critical levels within nine months. A sharp cut in capital spending is unwise, since it would capitulate the auto market to other producers. We look for the dividend to be cut and for important divisions to be sold.

GENERAL MOTORS
Prime Contract Awards (thousands of current dollars)

	1987	1988	1989	1990	1991	5 YR TOTAL
Arms and Ordnance	$125,578	$385,195	$414,669	$258,517	$132,411	$1,316,370
Fire Control Equipment	153,901	157,099	179,112	193,672	98,232	782,016
Missiles and Space Vehicles	1,280,133	955,947	1,177,406	1,219,382	1,123,820	5,756,688
Aircraft and Equipment	20,942	55,124	71,683	96,250	21,834	265,833
Ships and Equipment	0	0	0	0	4,660	4,660
Vehicles and Equipment	183,257	175,543	172,830	170,431	168,849	870,910
Engines and Components	345,992	257,440	253,479	216,386	285,350	1,358,647
Electronics and Communications	809,341	370,702	349,258	936,358	1,168,816	3,634,475
ADP	44,630	44,106	21,983	38,749	207,318	356,786
Other Equipment	156,821	25,643	72,962	102,714	52,229	410,369
RDT&E	464,578	615,330	488,413	369,281	421,625	2,359,227
Professional Services	485,994	181,994	164,775	234,990	132,457	1,200,210
Maintenance and Modifications	169,190	136,926	155,259	203,951	200,580	865,906
Miscellaneous Services	92,355	194,725	159,120	254,343	107,058	807,601
TOTAL	$4,332,712	$3,555,774	$3,680,949	$4,295,024	$4,125,239	$19,989,698

Restructuring: GM is on the brink of its most severe restructuring in 30 years. The Chairman has resigned. The Board is expected to work closely with the Strategy Committee to implement a massive restructuring program. Incremental cost cutting will give way to dramatic changes in the organizational structure of the company. Obvious actions are a massive reduction in duplicate marketing, management, and design staff across divisions, and a sharp reduction in GM component production. GM's workforce is substantially higher cost than other component producers. Tentative steps to increase outsourcing have produced warning strikes, and the labor relations issue is a critical risk for the company.

Risks: GM's future will remain highly uncertain until the extent of restructuring plans are clear and the UAW accepts their necessity. Our baseline forecast anticipates a substantial turnaround in GM profitability.

Upside earnings could easily be twice our year 2000 numbers if restructuring is successful, given GM's size and potential earnings leverage. But a labor strike that aborts restructuring might lead to a down spiral in which GMAC credit ratings were cut, capital spending was slashed, and GM's product offerings fell fatally behind the competitors, who will be seeking to capitalize on GM's market woes. A Chapter 11 filing in the context of a labor confrontation and unilateral contract changes cannot be ruled out. Sale of Hughes for cash cannot be ruled out, despite its likely low defense-aerospace multiple.

GM HUGHES ELECTRONICS CORPORATION

Hughes Electronics (GMHE) is a wholly-owned subsidiary of General Motors Corporation. GMHE's major divisions consist of the defense electronics, space, and commercial segments of Hughes Aircraft (purchased in December 1985), and automotive electronics. Automotive electronics accounted for 32% of 1991 sales. Defense Electronics accounted for 46%; Telecoms and Space were 16%, and Commercial Systems accounted for 6% of 1991 sales. GMHE Defense Electronics is the largest defense electronics company in the world.

Strategy: Sustain defense revenues by acquisition. Grow non-defense businesses (commercial, automotive, space) to 70% of revenues by 1999.

Acquisition: GMHE's defense exposure grew this year with the $450 million purchase of the Missiles division of General Dynamics. This $1.3 billion business complements GMHE's existing missile and defense program portfolio. Missile revenues will exceed $2 billion after the acquisition.

Restructuring: Separately, in June this year Hughes announced a massive restructuring that will eliminate 15% of its workforce and 92 of 352 facilities. Further jobs are likely to go as the GD division is gradually consolidated. The consolidation will enable Hughes to reduce capital spending and eliminate duplicate competitive R&D teams on some programs.

Revenue Prospects: GHME revenues are expected to be driven by sustained strong auto segment sales. Including the GD missiles, DRI sees Hughes Aircraft as a stable $9 billion business in the mid-90s. We expect defense electronics revenues to drop, but anticipate a strong increase in automotive electronics. Cars are getting smarter, and the electronic component of each auto produced is expected to approach $1000 per car in the late 1990s. We are less optimistic than some analysts that the commercial aerospace segment in Hughes can be a high growth business. In-flight entertainment systems are touted by GMHE as a major future business, but we doubt that it will meet company revenue expectations.

Financial Outlook: GMHE is one of the strongest elements within GM. The division is expected to remain strongly cash flow positive through the decade. The chief risk for GMHE from GM's parent financial woes is the possibility that GMHE might be sold to raise cash and reduce GM parent debt. This scenario should not hurt GMHE, and could strengthen the company if the selloff was via share flotation.

GM FINANCIAL SUMMARY

SEGMENT REVENUE	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Autos	99,106	96,906	94,607	99,000	106,000	112,000	120,000	125,000	137,000	142,000	148,000	154,000
Defense	5,369	5,416	5,325	5,430	6,000	6,500	6,500	6,500	6,550	6,650	6,650	6,750
Telecoms and Space	1,791	1,816	1,847	1,850	1,850	1,900	1,900	1,900	1,950	1,950	1,950	1,950
Other	12,851	13,303	14,030	15,400	16,300	17,100	17,900	18,800	19,800	20,800	21,800	22,900
Net Nonfinancial	119,117	117,441	115,809	121,680	130,150	137,500	146,300	152,200	165,300	171,400	178,400	185,600
Finance	11,254	11,812	11,115	11,012	11,779	12,444	13,240	13,774	14,960	15,512	16,145	16,797
Eliminations	5,378	6,247	4,843	5,111	5,466	5,775	6,145	6,392	6,943	7,199	7,493	7,795
Net	124,993	123,006	122,081	127,581	136,462	144,169	153,396	159,582	173,317	179,713	187,052	194,602

EARNINGS MODEL	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Total Net Sales	124,993	123,276	122,081	127,581	136,462	144,169	153,396	159,582	173,317	179,713	187,052	194,602
Cost of goods sold	104,550	107,414	109,824	113,675	121,042	125,427	132,687	136,442	148,186	153,655	159,930	166,384
as a % of Sales	84	87	90	89	89	87	87	86	86	86	86	86
Deprec	7,168	7,362	7,916	7,179	7,679	8,113	8,632	8,980	9,753	10,113	10,526	10,950
SG&A Incl R&D	0	0	0	0	0	0	0	0	0	0	0	0
as a % of Sales	0	0	0	0	0	0	0	0	0	0	0	0
Oper Income	13,275	8,500	4,341	6,727	7,741	10,629	12,077	14,160	15,378	15,946	16,597	17,267
as a % of Sales	11	7	4	5	6	7	8	9	9	9	9	9
Non-operating Inc	1,982	1,467	933	800	750	850	910	970	1,040	1,150	1,250	1,350
EBIT	15,257	9,967	5,274	7,527	8,491	11,479	12,987	15,130	16,418	17,096	17,847	18,617
as a % of Sales	12	8	4	6	6	8	8	9	9	10	10	10
Interest Exp	8,859	8,870	8,345	8,100	8,000	7,900	7,700	7,900	8,200	8,700	9,000	9,900
Special Items	0	-3,314	-2,821	-1,300	-1,200	0	0	0	0	0	0	0
Pretax Income	6,398	-2,217	-5,892	-1,873	-709	3,579	5,287	7,230	8,218	8,396	8,847	8,717
Taxes	2,174	-231	-900	-524	-198	1,002	1,480	2,024	2,301	2,351	2,477	2,441
Minority Interest	0	0	0	0	0	0	0	0	0	0	0	0
Operating Net	4,224	-1,986	-4,992	-1,348	-510	2,577	3,806	5,205	5,917	6,045	6,370	6,276
Special Charges/Gains	0	0	539	466	0	0	0	0	0	0	0	0
Reported Net Income	4,224	-1,986	-4,453	-882	-510	2,577	3,806	5,205	5,917	6,045	6,370	6,276

Restructuring charges in 1990-94

GM HUGHES FINANCIAL SUMMARY

SEGMENT REVENUE	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Hughes Aircraft	7,862	7,979	7,881	8,000	9,000	9,000	9,000	9,000	9,100	9,200	9,200	9,300
Automotive	3,497	3,744	3,660	4,200	4,500	4,750	5,200	5,500	5,800	6,150	6,300	6,700
Total Revenue	11,359	11,723	11,541	12,200	13,500	13,750	14,200	14,500	14,900	15,350	15,500	16,000

EARNINGS MODEL	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Total Net Sales	11,170	11,626	11,481	12,040	13,440	13,690	14,140	14,440	14,840	15,290	15,440	15,940
Costs and Expenses	10,273	10,618	10,805	11,197	12,432	12,663	13,009	13,285	13,653	14,067	14,205	14,665
as a % of Sales	92	91	94	93	93	93	92	92	92	92	92	92
of which: Deprec	639	650	625	634	651	679	706	732	757	782	807	829
Oper Income	897	1,008	676	843	1,008	1,027	1,131	1,155	1,187	1,223	1,235	1,275
as a % of Sales	8	9	6	7	8	8	8	8	8	8	8	8
Nonoperating Income	190	97	60	60	60	60	60	60	60	60	60	60
EBIT	1,087	1,105	736	903	1,068	1,087	1,191	1,215	1,247	1,283	1,295	1,335
as a % of Sales	10	10	6	7	8	8	8	8	8	8	8	8
Interest Expense	99	67	65	72	83	85	89	92	96	99	101	102
Pretax Income	988	1,038	671	831	985	1,001	1,102	1,123	1,151	1,184	1,195	1,233
Taxes	356	461	290	299	355	361	397	404	414	426	430	444
Minority Interest	0	0	0	0	0	0	0	0	0	0	0	0
Operating Net	632	577	381	532	631	641	706	719	737	758	765	789
Special Charges/Gains	0	0	54	0	0	0	0	0	0	0	0	0
Reported Net Income	632	577	435	532	631	641	706	719	737	758	765	789
Cash Dividends	288	288	288	288	288	288	288	288	288	288	288	288
Retained Earnings	344	289	147	244	343	353	418	431	449	470	477	501

BALANCE SHEET	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Current Assets	4,534	4,734	4,834	4,997	5,578	5,681	5,868	5,993	6,159	6,345	6,408	6,615
as a % of Sales	41	41	42	42	42	42	42	42	42	42	42	42
Net Fixed Assets	2,992	3,354	3,409	3,497	3,653	3,795	3,938	4,072	4,205	4,340	4,459	4,586
as a % of Sales	27	29	30	29	27	28	28	28	28	28	29	29
Other Assets	4,674	4,640	4,688	4,816	5,376	5,476	5,656	5,776	5,936	6,116	6,176	6,376
Total Assets	12,200	12,728	12,931	13,310	14,607	14,952	15,462	15,840	16,299	16,801	17,043	17,577
Current Liabs	3,217	3,360	3,285	3,492	3,898	3,970	4,101	4,188	4,304	4,434	4,478	4,623
St Debt	668	711	703	708	822	837	864	880	905	930	940	965
Long-Term Debt	251	272	147	250	280	300	320	350	375	390	400	400
Other incl Def Tax	834	997	1,281	1,107	1,625	1,525	1,466	1,297	1,166	1,053	764	653
Total Liabilities	4,302	4,629	4,713	4,848	5,802	5,795	5,887	5,835	5,845	5,877	5,642	5,675
Stockholder Equity	7,898	8,098	8,218	8,462	8,804	9,157	9,575	10,006	10,454	10,924	11,401	11,902
Total Liabs&Equity	12,200	12,727	12,931	13,310	14,607	14,952	15,462	15,840	16,299	16,801	17,043	17,577
LT Debt/Capital	0.02	0.02	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02

OTHER KEY VARIABL	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Employment, '000	94	95	93	92	94	94	94	94	95	95	95	95
Capital Spending	649	884	681	722	806	821	848	866	890	917	926	956
as a % of Sales	0.058	0.076	0.059	0.060	0.060	0.060	0.060	0.060	0.060	0.060	0.060	0.060

KEY FIN RATIOS	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
ROE(NET/EQUITY)	0.08	0.07	0.05	0.06	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07
ROSales(EBIT/SLS)	0.10	0.10	0.06	0.07	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08
ATO(SLS/ASSETS)	0.92	0.91	0.89	0.90	0.92	0.92	0.91	0.91	0.91	0.91	0.91	0.91
ROA(EBIT/ASSETS)	0.09	0.09	0.06	0.07	0.07	0.07	0.08	0.08	0.08	0.08	0.08	0.08
LEVERAGE (ASS/EQ)	1.54	1.57	1.57	1.57	1.66	1.63	1.61	1.58	1.56	1.54	1.49	1.48
PRETAX/EBIT	0.91	0.94	0.91	0.92	0.92	0.92	0.93	0.92	0.92	0.92	0.92	0.92
NET/PRETAX	0.64	0.56	0.65	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64

BOEING COMPANY

Boeing is the largest commercial aircraft maker in the world. Jet commercial aircraft account for over 78% of revenues. Military and space revenues exceeded $5 billion in 1991. Boeing's debt is AA rated, with a debt capital ratio of 14% in 1991. The company is a net creditor, holding over $3 billion in cash and securities in early 1992.

THE BOEING COMPANY	
Major Contracts	**Major Subcontracts**
F-22(33%)	B-2 (airframe)
RAH-66 Helicopter	
V-22	
LH (Light Helicopter)	
AWACS	
CH-47	
Titan IV Launch Vehicle	
ALS (Advanced Launch System)	
E-6	

Strategy: Maintain dominant role in commercial aircraft. Expand Asian supplier linkages to bolster long-term Asian sales prospects. Improve military business margins.

Revenue Prospects: Second quarter results confirm that Boeing revenues have peaked. First-half revenues were $15.8 billion, up 13.6% from last year, but second quarter revenues were flat compared to last year. Since early 1991 DRI has projected revenue declines for Boeing in 1993-95 as a result of the down cycle in airline revenued and a subsequent drop in aircraft deliveries.

THE BOEING COMPANY Prime Contract Awards (thousands of current dollars)						
	1987	1988	1989	1990	1991	5 YR TOTAL
Arms and Ordnance	$3,885	$906	($470)	($54)	$4,221	$8,488
Fire Control Equipment	3,448	1,574	(713)	1,682	416	6,407
Missiles and Space Vehicles	455,045	455,450	392,972	558,241	401,169	2,262,877
Aircraft and Equipment	785,190	957,697	579,658	433,831	588,714	3,345,090
Ships and Equipment	4,391	(130)	(180)	0	0	4,081
Vehicles and Equipment	0	0	0	0	0	0
Engines and Components	841	1,824	8,464	8,053	2,067	21,249
Electronics and Communications	184,901	(5,937)	154,803	101,313	(139,569)	295,511
ADP	78	8,288	11,621	12,140	9,439	41,566
Other Equipment	75,542	124,409	76,140	55,722	19,861	351,674
RDT&E	1,289,406	928,243	1,024,933	1,137,825	705,053	5,085,460
Professional Services	322,772	285,810	475,995	377,654	399,273	1,861,504
Maintenance and Modifications	507,060	450,635	503,517	280,693	54,858	1,796,763
Miscellaneous Services	73,751	100,334	116,552	108,281	94,549	493,467
TOTAL	$3,706,310	$3,309,103	$3,343,292	$3,075,381	$2,140,051	$15,574,137

This has now become the consensus forecast on Wall Street. Boeing will ship fewer planes: 737 production rates are set to drop sharply in October, and only 27 747s are scheduled for second half delivery compared to 34 in the first half. Boeing remains on track for revenues of about $29.3 billion in 1992.

R&D and capital spending are slated for significant declines in the next three years as Boeing moves to sustain EPS in a declining revenue environment. The 777 R&D phase is peaking. A stretched 747-500 program is likely to begin later in the decade. There is talk of a new 737 replacement, but this program is not expected to build momentum until 777 revenues arrive to support development costs.

Boeing remains the strongest civilian aerospace company in the world. In a shrinking defense end-market, Boeing is well-positioned as a member of the winning teams for development and production of the F-22 and the RAH-66. Boeing will be adversely impacted by B-2 reductions, and Space Station business is also at risk.

Defense development is expected to accelerate in the mid-90s, with F-22 deliveries likely to begin about the end of the decade. Boeing is teamed with Sikorsky for the RAH-66 Commanche helicopter.

Firm order backlog has held up well, considering the weakened state of world airlines and pressures on the U.S. defense budget. At midyear, the firm order backlog stood at $97 billion, down from $97.8

billion at the end of 1991. Civilian aircraft accounted for $91 billion of the total. Boeing received 55 new orders in the quarter, totaling $5.0 billion, and $9.4 billion in orders in the first half. Importantly, Boeing received 30 new orders for the 777 program in the first six months of 1992. Some 85% of new civil orders were from non-U.S. carriers.

Risks: Boeing's chief risk is the prospect of reduced aircraft orders beyond what DRI projects in the late 1990s. Boeing is the best-positioned supplier for this scenario, since this weakness would delay major capital spending. A second risk is the uncertain outlook for defense programs in which Boeing is a major partner.

The commercial air business is now in recession, and most major airlines are suffering serious losses in the global slump. Excess capacity has created a persistent problem of low passenger yield despite a modest revival in total revenue-passenger miles from 1991 lows. We expect airline weakness to persist another year. Thereafter, we look for excess capacity pressures on airlines to ease. A major upturn in aircraft orders is expected in the late 1990s, with the mix of airline orders shifting toward widebodies, favorable for Boeing. This is a reflection of global growth patterns; long-haul-intensive Asian and Latin American routes will experience the greatest passenger increases.

Financial Outlook: Boeing has maintained a $3 billion cash cushion. At midyear, the company's cash pile stood at $4.3 billion, dwarfing its long-term debt of $1.3 billion. Boeing is expected to maintain a $1 dividend, for a payout rate of about 20%, retaining a minimum of $4.00 per share in 1992 and $3.50 per share in 1993. As a result, the debt-equity ratio is expected to drop slightly from its recent 16% level, already far below the aerospace average.

BOEING FINANCIAL SUMMARY

SEGMENT REVENUE	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Commercial Transport	14,305	21,230	22,970	23,200	22,600	22,400	22,600	23,300	25,500	27,000	28,000	29,000
Military Transport	3,962	4,123	4,188	4,000	3,900	3,600	3,600	3,700	3,750	3,800	3,850	4,000
Missiles and Space	1,467	1,739	1,658	1,550	1,450	1,450	1,450	1,550	1,600	1,625	1,650	1,700
Other	542	503	498	490	500	500	500	500	500	500	500	500
Net	20,276	27,595	29,314	29,240	28,450	27,950	28,150	29,050	31,350	32,925	34,000	35,200

EARNINGS MODEL	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Total Net Sales	20,276	27,595	29,314	29,240	28,450	27,950	28,150	29,050	31,350	32,925	34,000	35,200
Cost of goods sold	17,302	23,355	23,826	23,743	22,959	22,500	22,802	23,531	25,550	26,834	27,710	28,688
as a % of Sales	85.3	84.6	81.3	81.2	80.7	80.5	81	81	81.5	81.5	81.5	81.5
Deprec	627	678	826	983	1,201	1,252	1,260	1,275	1,296	1,339	1,418	1,534
SG&A Incl R&D	1,766	2,032	2,708	2,632	2,418	2,376	2,505	2,615	2,822	2,963	3,060	3,168
as a % of Sales	8.7	7.4	9.2	9.0	8.5	8.5	8.9	9.0	9.0	9.0	9.0	9.0
Oper Income	581	1,530	1,954	1,882	1,872	1,823	1,583	1,630	1,682	1,788	1,812	1,810
as a % of Sales	2.9	5.5	6.7	6.4	6.6	6.5	5.6	5.6	5.4	5.4	5.3	5.1
Non-operating Inc	365	470	307	290	290	300	315	320	320	330	340	345
EBIT	946	2,000	2,261	2,172	2,162	2,123	1,898	1,950	2,002	2,118	2,152	2,155
as a % of Sales	4.7	7.2	7.7	7.4	7.6	7.6	6.7	6.7	6.4	6.4	6.3	6.1
Interest Exp	24	28	57	125	124	125	134	144	163	169	169	173
Special Items	0	0	0	0	0	0	0	0	0	0	0	0
Pretax Income	922	1,972	2,204	2,047	2,038	1,998	1,764	1,806	1,839	1,950	1,984	1,982
Taxes	247	587	637	594	611	599	529	542	552	585	595	595
Minority Interest	0	0	0	0	0	0	0	0	0	0	0	0
Operating Net	675	1,385	1,567	1,453	1,426	1,399	1,235	1,264	1,287	1,365	1,389	1,387
Special Charges/Gains	298	0	0	0	0	0	0	0	0	0	0	0
Reported Net Income	973	1,385	1,567	1,453	1,426	1,399	1,235	1,264	1,287	1,365	1,389	1,387
Pfd Div	0	0	0	0	0	0	0	0	0	0	0	0
Net for Common	973	1,385	1,567	1,453	1,426	1,399	1,235	1,264	1,287	1,365	1,389	1,387
Dividends	269	328	343	359	375	390	400	425	450	467	488	510
Retained Earnings	704	1,057	1,224	1,094	1,051	1,009	835	839	837	898	901	877
Share Repurchase	14	2	0	0	0	250	400	400	500	450	350	250

BALANCE SHEET	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Current Assets	8,660	8,770	8,829	8,772	8,251	8,385	8,445	9,296	10,346	11,195	11,560	11,968
as a % of Sales	43	32	30	30	29	30	30	32	33	34	34	34
Net Fixed Assets	4,150	5,078	6,146	7,063	7,362	7,410	7,501	7,626	7,879	8,340	9,022	9,788
as a % of Sales	20	18	21	24	26	27	27	26	25	25	27	28
Other Assets	468	743	809	881	1,986	2,556	2,983	2,838	2,412	1,885	1,667	1,376
Total Assets	13,278	14,591	15,784	16,716	17,599	18,351	18,928	19,759	20,636	21,420	22,249	23,132
Current Liabs	6,673	7,132	6,276	6,140	5,975	5,870	5,912	6,101	6,584	6,914	7,140	7,392
St Debt	5	4	4	8	12	15	15	15	25	25	25	25
Long-Term Debt	275	311	1,313	1,300	1,300	1,400	1,500	1,700	1,750	1,750	1,800	1,800
Other incl Def Tax	199	175	102	88	85	84	84	87	94	99	102	106
Total Liabilities	7,147	7,618	7,691	7,528	7,360	7,353	7,496	7,888	8,428	8,763	9,042	9,298
Stockholder Equity	6,131	6,973	8,093	9,187	10,239	10,998	11,432	11,872	12,209	12,657	13,207	13,835
Equity for Common	6,131	6,973	8,093	9,187	10,239	10,998	11,432	11,872	12,209	12,657	13,207	13,835
Total Liabs&Equity	13,278	14,591	15,784	16,716	17,599	18,351	18,928	19,759	20,636	21,420	22,249	23,132
LT Debt/Capital	4	4	14	12	11	11	12	13	13	12	12	12

OTHER KEY VARIABLE	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Capital Spending	1,362	1,586	1,850	1,900	1,500	1,300	1,350	1,400	1,550	1,800	2,100	2,300
Net Working Capital	1,987	1,638	2,553	2,632	2,276	2,516	2,534	3,196	3,762	4,280	4,420	4,576
EBITDA	1,573	2,678	3,087	3,156	3,363	3,375	3,158	3,225	3,298	3,458	3,570	3,689
Implied free Cash Flow(E	-583	536	149	1,101	1,486	1,499	1,932	1,012	1,115	1,067	1,350	1,145

KEY FIN RATIOS	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
ROE(NET/EQUITY)	0.159	0.199	0.194	0.158	0.139	0.127	0.108	0.106	0.105	0.108	0.105	0.100
ROSales(EBIT/SLS)	0.047	0.072	0.077	0.074	0.076	0.076	0.067	0.067	0.064	0.064	0.063	0.061
ATO(SLS/ASSETS)	1.527	1.891	1.857	1.749	1.617	1.523	1.487	1.470	1.519	1.537	1.528	1.522
ROA(EBIT/ASSETS)	0.071	0.137	0.143	0.130	0.123	0.116	0.100	0.099	0.097	0.099	0.097	0.093
LEVERAGE (ASS/EQ)	2.166	2.092	1.950	1.819	1.719	1.669	1.656	1.664	1.690	1.692	1.685	1.672
PRETAX/EBIT	0.975	0.986	0.975	0.942	0.943	0.941	0.929	0.926	0.919	0.920	0.922	0.920
NET/PRETAX	1.055	0.702	0.711	0.710	0.700	0.700	0.700	0.700	0.700	0.700	0.700	0.700
PAYOUT RATIO	0.28	0.24	0.22	0.25	0.26	0.28	0.32	0.34	0.35	0.34	0.35	0.37

United Technologies Corporation

United Technologies Corporation (UTC) is a diversified technology-based manufacturer. Major divisions include Power, (Pratt and Whitney engines), Building Systems (Otis elevators and Carrier air conditioners), Flight (Sikorsky helicopters, Norden systems, Hamilton standard controls), Automotive components. Rated A+, with a 37% Debt/Capital ratio.

United Technologies Corporation	
Major Contracts	**Major Subcontracts**
RAH-66 Helicopter	F-15 (engines, controls)
UH-60	F-18 (controls)
	F-16 (engines)
	C-17 (computers)

UNITED TECHNOLOGIES CORPORATION
Prime Contract Awards (thousands of current dollars)

	1987	1988	1989	1990	1991	5 YR TOTAL
Arms and Ordnance	$12,662	$9,523	$25,597	$39,423	$7,740	$94,945
Fire Control Equipment	24,278	966	13,006	8,624	7	46,881
Missiles and Space Vehicles	36,960	17,735	6,100	12,890	1,458	75,143
Aircraft and Equipment	1,026,037	1,170,783	1,028,302	983,096	835,581	5,043,799
Ships and Equipment	0	1,961	44	0	0	2,005
Vehicles and Equipment	426	0	0	49	0	475
Engines and Components	1,633,740	1,427,119	1,434,722	1,335,260	924,108	6,754,949
Electronics and Communications	82,864	82,621	128,090	48,382	60,537	402,494
ADP	8,467	1,531	2,176	5,848	1,580	19,602
Other Equipment	44,411	81,938	60,219	55,269	28,107	269,944
RDT&E	445,871	459,051	411,842	384,033	312,141	2,012,938
Professional Services	195,948	111,777	217,117	62,872	159,963	747,677
Maintenance and Modifications	228,422	182,061	329,214	111,959	107,820	959,476
Miscellaneous Services	92,461	19,161	11,903	6,626	697	130,848
TOTAL	$3,832,547	$3,566,227	$3,668,332	$3,054,331	$2,439,739	$16,561,176

Strategy: Cut costs and downsize to maintain margin on a reduced aerospace and new building systems business base. Emphasize after-markets and service, building sales in emerging markets.

Restructuring: UTC has moved aggressively to cut costs and improve margins, taking a $1.28 billion restructuring charge against earnings in 1991. Revenues have been hit by (1) defense procurement cuts, (2) world airline recession (which has reduced airline operations and orders for spares), and (3) the slump in world building construction. Pratt and Whitney is downsizing employment and operating space aggressively.

Revenue Prospects: End-market prospects are mixed. New office construction will remain deeply depressed in most traditional markets through 1995. Elevator service business is increasing, however. At Pratt and Whitney, the commercial airline inventory rundown and reduced operating levels have hurt the commercial aircraft engine after-market business. Pratt will benefit from F-16 sales to Korea, and was selected to power the F-22. Sikorsky is developing the Commanche helicopter (teamed with Boeing).

DRI expects after-market sales to gradually revive for Pratt over the remainder of the decade, which will enable Power segment revenues to increase, despite a drop in new aircraft procurement in both the defense and commercial markets.

Building systems and auto sales have already risen impressively this year, despite lingering economic weakness. Carrier has been able to increase market share in air conditioners.

Financial Outlook: Gross operating profit will approach $1 billion in 1992, the result of last year's cost cuts and revenue increases in some segments, including Carrier. Debt levels are expected to be modestly reduced. UTC earnings have a substantial upside, since most business segments have a strong exposure to the global business cycle. Earnings are expected to move sharply higher in the 1994-97 period, with a recovery in commercial aircraft orders adding to earnings at the end of the decade.

Risks: Power segment revenues may disappoint. Pratt and Whitney will face market risk since its PW4000 engines power the MD-11, whose deliveries will drop from about 37 in 1993 to about 24 in 1994-95. The ultimate size of the MD-11 fleet may be nearer 200 aircraft than the 300-350 envisaged by McDonnell Douglas originally. Also the PW4000 has had technical problems. General Electric has gained market share in commercial aircraft at P-W's expense.

UNITED TECHNOLOGIES FINANCIAL SUMMARY

SEGMENT REVENUE	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Power	7,055	7,297	7,171	7,200	7,250	7,300	7,600	8,000	8,400	8,800	9,200	9,700
Flight Systems	3,782	4,034	3,973	4,000	4,100	4,200	4,400	4,700	5,200	5,500	5,800	6,100
Building systems	7,244	7,988	8,140	8,900	9,250	9,600	10,000	10,500	11,000	11,600	12,300	13,100
Automotive	1,932	2,621	2,084	2,150	2,300	2,600	2,700	2,850	3,000	3,200	3,400	3,550
Other	27	32	50	50	55	60	65	70	70	70	75	75
Eliminations	236	184	156	156	161	166	173	183	194	204	215	228
Net	19,804	21,788	21,262	22,144	22,794	23,594	24,592	25,937	27,476	28,966	30,560	32,297

EARNINGS MODEL	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Total Net Sales	19,614	21,549	20,953	22,144	22,794	23,594	24,592	25,937	27,476	28,966	30,560	32,297
Cost of goods sold	13,762	15,315	15,623	16,165	16,549	17,105	17,829	18,804	19,920	21,000	22,156	23,416
as a % of Sales	70	71	75	73	73	73	73	73	73	73	73	73
Deprec	620	700	764	783	820	842	869	900	942	990	1,043	1,104
SG&A Incl R&D	3,767	4,115	4,152	4,252	4,377	4,506	4,697	4,954	5,248	5,532	5,837	6,169
as a % of Sales	19	19	20	19	19	19	19	19	19	19	19	19
Oper Income	1,465	1,419	414	944	1,049	1,140	1,197	1,279	1,366	1,443	1,524	1,609
as a % of Sales	7	7	2	4	5	5	5	5	5	5	5	5
Non-operating Inc	203	248	379	350	340	330	325	315	300	280	250	250
EBIT	1,668	1,667	793	1,294	1,389	1,470	1,522	1,594	1,666	1,723	1,774	1,859
as a % of Sales	9	8	4	6	6	6	6	6	6	6	6	6
Interest Exp	407	422	409	305	270	261	257	261	270	279	288	306
Special Items	0	46	-1,275	0	0	0	0	0	0	0	0	0
Pretax Income	1,261	1,291	-891	989	1,119	1,209	1,265	1,333	1,396	1,444	1,486	1,553
Taxes	498	479	75	356	403	435	455	480	502	520	535	559
Minority Interest	61	61	55	60	60	60	60	60	60	60	60	60
Operating Net	702	751	-1,021	573	656	714	750	793	833	864	891	934
Special Charges/Gains	0	0	0	0	0	0	0	0	0	0	0	0
Reported Net Income	702	751	-1,021	573	656	714	750	793	833	864	891	934
Pfd Div	15	36	62	62	62	62	62	62	62	62	62	62
Net for Common	687	715	-1,083	511	594	652	688	731	771	802	829	872
Dividends	206	218	219	221	230	240	250	263	273	284	295	306
Retained Earnings	481	497	-1,302	290	364	412	438	468	498	518	534	566
Share Repurchase	594	85	0	0	50	50	50	75	75	75	75	75

BALANCE SHEET	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Current Assets	8,507	9,012	8,931	9,522	9,802	10,145	10,574	11,153	11,815	12,455	13,141	13,888
as a % of Sales	43	42	43	43	43	43	43	43	43	43	43	43
Net Fixed Assets	3,952	4,396	4,607	4,824	4,954	5,112	5,293	5,543	5,826	6,135	6,492	6,889
as a % of Sales	20	20	22	22	22	22	22	21	21	21	21	21
Other Assets	2,139	2,510	2,447	1,378	1,439	1,565	1,787	1,983	2,169	2,351	2,597	2,831
Total Assets	14,598	15,918	15,985	15,724	16,195	16,822	17,654	18,679	19,810	20,941	22,230	23,607
Current Liabs	6,376	5,951	6,577	6,754	6,952	7,196	7,500	7,911	8,380	8,835	9,321	9,851
St Debt	1,575	660	490	400	400	400	400	400	400	400	400	400
Long-Term Debt	1,960	2,902	2,903	2,600	2,500	2,450	2,500	2,600	2,700	2,800	3,000	3,200
Other incl Def Tax	1,522	1,641	2,418	1,993	2,051	2,123	2,213	2,334	2,473	2,607	2,750	2,907
Total Liabilities	9,858	10,494	11,898	11,347	11,504	11,770	12,214	12,845	13,553	14,241	15,071	15,957
Stockholder Equity	4,740	5,424	4,087	4,377	4,691	5,053	5,440	5,833	6,257	6,700	7,159	7,650
Preferred Stock	1	860	852	850	850	850	850	850	850	850	850	850
Equity for Common	4,739	4,564	3,235	3,527	3,841	4,203	4,590	4,983	5,407	5,850	6,309	6,800
Total Liabs&Equity	14,598	15,918	15,985	15,724	16,195	16,822	17,654	18,679	19,810	20,941	22,230	23,607
LT Debt/Capital	43	40	45	41	38	36	35	34	33	32	32	32

OTHER KEY VARIABLE	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Employment, '000	201	193	185	175	173	170	171	174	183	187	191	196
Capital Spending	1,023	1,200	1,048	1,000	950	1,000	1,050	1,150	1,225	1,300	1,400	1,500
Net Working Capital	2,131	3,061	2,354	2,768	2,849	2,949	3,074	3,242	3,435	3,621	3,820	4,037
EBITDA	2,288	2,367	1,557	2,077	2,209	2,312	2,391	2,494	2,608	2,713	2,817	2,963
Implied free Cash Flow(E	1,658	745	100	772	989	1,051	1,084	1,083	1,113	1,134	1,129	1,157

KEY FIN RATIOS	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
ROE(NET/EQUITY)	0.15	0.16	-0.33	0.14	0.15	0.16	0.15	0.15	0.14	0.14	0.13	0.13
ROSales(EBIT/SLS)	0.09	0.08	0.04	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
ATO(SLS/ASSETS)	1.34	1.35	1.31	1.41	1.41	1.40	1.39	1.39	1.39	1.38	1.37	1.37
ROA(EBIT/ASSETS)	0.11	0.10	0.05	0.08	0.09	0.09	0.09	0.09	0.08	0.08	0.08	0.08
LEVERAGE (ASS/EQ)	3.08	3.49	4.94	4.46	4.22	4.00	3.85	3.75	3.66	3.58	3.52	3.47
PRETAX/EBIT	0.76	0.77	-1.12	0.76	0.81	0.82	0.83	0.84	0.84	0.84	0.84	0.84
NET/PRETAX	0.54	0.55	1.22	0.52	0.53	0.54	0.54	0.55	0.55	0.56	0.56	0.56
PAYOUT RATIO	0.30	0.30	-0.20	0.43	0.39	0.37	0.36	0.36	0.35	0.35	0.36	0.35

ROCKWELL INTERNATIONAL CORPORATION

Rockwell is a diversified $11 billion technology-based manufacturing company. Principal lines of business are aerospace, electronics, industrial automation, automotive components, and graphics machinery. Declining defense/space revenues now account for some 44% of total company sales. Bond rating: AA. Debt/Capital ratio: 21%.

Rockwell International Corporation	
Major Contracts	**Major Subcontracts**
B-1	F-15 (navigation, communications)
MX Missile Rail Garrison	F-18 (navigation)
Hellfire Missile	F-16 (communications, navigation)
MX Missiles	AH-64 (weapons control)
GBU-15	UH-60 (radar)
GPS (Global Positioning System)	P-7 (navigation)
B-2 (electronics)	F-15 (electronic warfare)
	F-18 (electronic warfare)
	F-16 (electronic warfare, radar)
	F-22 (radar)
	LHX/RAH-66 (controls)

Strategy: Shift earnings mix to commercial business while improving defense margins. Capitalize on internal restructuring to reduce costs. Use financial strength to maintain shareholder value via dividend increases and share repurchase. Position for economic recovery - driven increases in revenues and earnings.

Revenue: Prospects: Rockwell's traditional aerospace business is in secular decline. The cancellation of the Small ICBM program sharply reduces future defense revenue prospects. Rockwell's main defense programs (the B-1 bomber, the Shuttle Orbiter, and the MX Missile) are fully mature. Rockwell remains NASA's largest contractor, and will provide the power system for Space Station Freedom. Shuttle revenues will continue, as will rocket engines for Atlas and Delta launch vehicles. Rockwell is teamed for the JPATS Trainer and the AX attack bomber. National Aerospace Plane (NASP) propulsion and technology program contracts are a source of future revenue growth.

ROCKWELL INTERNATIONAL CORPORATION Prime Contract Awards (thousands of current dollars)						
	1987	1988	1989	1990	1991	5 YR TOTAL
Arms and Ordnance	$49,183	$7,055	$13,107	$14,756	$76,795	$160,896
Fire Control Equipment	1,240	4,577	2,271	3,064	370	11,522
Missiles and Space Vehicles	625,277	591,283	1,208,916	1,175,116	876,822	4,477,414
Aircraft and Equipment	439,696	389,459	44,524	287,467	71,468	1,232,614
Ships and Equipment	0	0	0	0	0	0
Vehicles and Equipment	9,253	11,393	2,731	3,876	30,030	57,283
Engines and Components	433,137	483,137	471,295	474,399	425,970	2,287,938
Electronics and Communications	326,110	220,614	265,284	453,443	230,309	1,495,760
ADP	1,094	15,012	9,264	2,362	5,246	32,978
Other Equipment	38,278	75,389	26,555	39,619	64,876	244,717
RDT&E	1,358,210	1,578,981	1,506,472	1,130,395	920,104	6,494,162
Professional Services	418,538	623,812	650,301	381,051	453,959	2,527,661
Maintenance and Modifications	277,577	401,826	461,876	386,330	467,095	1,994,704
Miscellaneous Services	68,800	5,900	13,139	15,786	18,046	121,671
TOTAL	$4,046,393	$4,408,438	$4,675,735	$4,367,664	$3,641,090	$21,139,320

Within the Electronics segment, the commercial avionics, industrial automation, and telecommunications commercial businesses are growing, producing a steady decline in defense exposure. Rockwell's electronics defense businesses include tactical missiles (Hellfire, GBU-15, AGM-130), and Global Positioning equipment.

Rockwell's automotive segment supplies components for passenger cars, trucks, and buses. Operating earnings have begun to recover from the global recession in the car and truck industry.

Financial Outlook: Rockwell's diversification out of defense has increased the company's business cycle exposure. This has reduced profits in recent years, but also implies a substantial earnings improvement as economic conditions improve in the automotive and graphic equipment segments. Aerospace segment revenues are expected to drop further. Electronics segment revenues are expected to flatten at a higher plateau in 1994-95 as defense declines are offset by increased avionics and telecommunications sales.

Risks: Rockwell has a conservative balance which presents little financial risk at present. The chief risks are the potential for a weaker than expected recovery in key end-markets, including avionics and autos. NASA program budget cuts would also adversely affect the firm.

ROCKWELL FINANCIAL SUMMARY

SEGMENT REVENUE	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Electronics	4,498	4,536	4,672	4,550	4,650	4,800	4,800	4,800	4,900	5,100	5,300	5,500
Aerospace	3,909	3,781	3,535	3,150	3,000	2,900	2,800	2,700	2,750	2,700	2,700	2,700
Automotive	2,424	2,560	2,340	2,400	2,500	2,700	2,900	3,000	3,100	3,200	3,350	3,500
Graphics	1,110	1,035	962	700	750	800	850	900	925	950	1,000	1,050
Divested	577	467	418	0	0	0	0	0	0	0	0	0
Eliminations	0	0	0	0	0	0	0	0	0	0	0	0
Net	12,518	12,379	11,927	10,800	10,900	11,200	11,350	11,400	11,675	11,950	12,350	12,750

EARNINGS MODEL	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Total Net Sales	12,518	12,378	11,927	10,800	10,900	11,200	11,350	11,400	11,675	11,950	12,350	12,750
Cost of goods sold	9,372	9,197	8,943	8,176	8,175	8,400	8,513	8,550	8,756	8,963	9,263	9,563
as a % of Sales	75	74	75	76	75	75	75	75	75	75	75	75
Deprec	615	620	601	541	480	482	486	493	502	511	519	530
SG&A Incl R&D	1,473	1,449	1,385	1,296	1,243	1,277	1,294	1,300	1,331	1,362	1,408	1,454
as a % of Sales	12	12	12	12	11	11	11	11	11	11	11	11
Oper Income	1,058	1,112	998	787	1,002	1,041	1,058	1,057	1,086	1,114	1,160	1,204
as a % of Sales	8	9	8	7	9	9	9	9	9	9	9	9
Non-operating Inc	279	84	432	80	80	90	90	100	100	90	90	90
EBIT	1,337	1,196	1,430	867	1,082	1,131	1,148	1,157	1,186	1,204	1,250	1,294
as a % of Sales	11	10	12	8	10	10	10	10	10	10	10	10
Interest Exp	132	144	135	91	99	99	99	99	99	99	99	99
Special Items	0	0	-272	0	0	0	0	0	0	0	0	0
Pretax Income	1,205	1,052	1,023	776	983	1,032	1,049	1,058	1,087	1,105	1,151	1,195
Taxes	471	428	423	302	384	403	409	413	424	431	449	466
Minority Interest	0	0	0	0	0	0	0	0	0	0	0	0
Operating Net	734	624	600	473	600	630	640	645	663	674	702	729
Special Charges/Gains	0	0	0	0	0	0	0	0	0	0	0	0
Reported Net Income	734	624	600	473	600	630	640	645	663	674	702	729
Pfd Div	0	0	0	0	0	0	0	0	1	1	1	1
Net for Common	734	624	600	473	600	629	640	645	663	673	702	728
Dividends	192	195	201	221	230	240	250	263	273	284	295	306
Retained Earnings	542	429	399	252	370	389	390	382	390	389	407	422
Share Repurchase	278	303	338	250	250	300	300	300	300	300	300	300

BALANCE SHEET	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Current Assets	4,367	4,775	4,823	4,320	4,360	4,480	4,540	4,560	4,670	4,780	4,940	5,100
as a % of Sales	35	39	40	40	40	40	40	40	40	40	40	40
Net Fixed Assets	2,594	2,668	2,461	2,400	2,410	2,428	2,467	2,509	2,557	2,596	2,651	2,696
as a % of Sales	21	22	21	22	22	22	22	22	22	22	21	21
Other Assets	1,978	2,295	2,195	2,472	2,581	2,651	2,700	2,740	2,780	2,830	2,879	2,954
Total Assets	8,939	9,738	9,479	9,192	9,351	9,559	9,707	9,809	10,007	10,205	10,470	10,751
Current Liabs	3482	3843	3322	3294	3325	3416	3462	3477	3561	3645	3767	3889
St Debt	770	803	275	400	400	400	400	400	400	400	400	400
Long-Term Debt	552	553	740	700	700	700	700	700	700	700	700	700
Other incl Def Tax	927	1156	1193	972	981	1008	1022	1026	1051	1076	1112	1148
Total Liabilities	4961	5552	5255	4966	5006	5124	5183	5203	5312	5420	5578	5736
Stockholder Equity	3978	4186	4224	4226	4345	4435	4524	4606	4696	4785	4892	5014
Preferred Stock	2	2	2	2	2	2	2	2	2	2	2	2
Equity for Common	3976	4184	4222	4224	4343	4433	4522	4604	4694	4783	4890	5012
Total Liabs&Equity	8939	9738	9479	9192	9351	9559	9707	9809	10007	10205	10470	10751
LT Debt/Capital	25	24	19	21	20	20	20	19	19	19	18	18

OTHER KEY VARIABLE	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Employment, '000	109	102	87	76	75	75	74	73	73	72	74	75
Capital Spending	609	538	484	480	490	500	525	535	550	550	575	575
Net Working Capital	885	932	1,501	1,026	1,036	1,064	1,078	1,083	1,109	1,135	1,173	1,211
EBITDA	1,952	1,816	2,031	1,408	1,562	1,613	1,634	1,650	1,688	1,715	1,770	1,824
Implied free Cash Flow(E	1,211	1,134	1,412	837	973	1,014	1,010	1,016	1,039	1,066	1,096	1,150

KEY FIN RATIOS	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
ROE(NET/EQUITY)	0.18	0.15	0.14	0.11	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.15
ROSales(EBIT/SLS)	0.11	0.10	0.12	0.08	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
ATO(SLS/ASSETS)	1.40	1.27	1.26	1.17	1.17	1.17	1.17	1.16	1.17	1.17	1.18	1.19
ROA(EBIT/ASSETS)	0.15	0.12	0.15	0.09	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12
LEVERAGE (ASS/EQ)	2.25	2.33	2.25	2.18	2.15	2.16	2.15	2.13	2.13	2.13	2.14	2.14
PRETAX/EBIT	0.90	0.88	0.72	0.89	0.91	0.91	0.91	0.91	0.92	0.92	0.92	0.92
NET/PRETAX	0.61	0.59	0.59	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61
PAYOUT RATIO	0.26	0.31	0.34	0.47	0.38	0.38	0.39	0.41	0.41	0.42	0.42	0.42

MARTIN MARIETTA CORPORATION

Martin Marietta (MM) is a $6.1 billion company in 1991, earning $313 million. Flat sales for past 2 years. A+ rated with a 25% debt/capital ratio. No intention to deleverage further. $11 billion backlog, not counting Department of Energy (DOE) management contracts (which run about $2 billion per year).

MARTIN MARIETTA CORPORATION	
Major Contracts	**Major Subcontracts**
AAWS-M (Advanced Anti-Tank Weapon System-Medium)	F-18 (weapons control/targeting)
Titan IV Launch Vehicle	F-15 (navigation, weapons control/targeting)
LS (Advanced Launch System)	F-16 (navigation, weapons control/targeting)
Hellfire missile	AH-64 (radar)
Javelin missile (after 1994)	LHX/RAH-66 (navigation, targeting)
Night Vision Targeting Systems (LANTIRN)	Patriot missile (navigation)
LONGBOW fire control system	
Towed sonar arrays	
SDI (Brilliant Eyes, Brilliant Pebbles)	

About 72% of revenues are NASA/DoD.

Recent program casualties include the MX Peacekeeper and the small ICBM.

Strategy: Improve profitability on flat or slightly lower defense sales. Expand market share in electronics and space. Make opportunistic acquisitions within the defense/space business segments to enhance technological base/market share. Aggressively pursue non-defense government business, where the application is technological. Stabilize debt/capital ratio at current level. Integrate recent acquisition of GE Aerospace.

Revenue Prospects: Failed (outbid) LTV Missiles acquisition was in the $400 million range. DRI anticipates possible acquisitions in the $400-

500 million range in the next year or two. The GD materials business is a possible buy, since Martin Marietta plans to increase its aggregates business.

Major non-defense/space programs include: DOE facilities management, FAA systems, Post Office Automation, EPA computer management, Social Security Administration. Subcontractor on the Superconducting Supercollider.

MARTIN MARIETTA CORPORATION
Prime Contract Awards (thousands of current dollars)

	1987	1988	1989	1990	1991	5 YR TOTAL
Arms and Ordnance	$23,391	$295,772	$60,887	$156,946	$285,710	$822,706
Fire Control Equipment	74,244	84,755	50,449	72,744	8,074	290,266
Missiles and Space Vehicles	507,282	338,438	296,766	658,686	159,949	1,961,121
Aircraft and Equipment	967,662	883,548	726,763	599,545	601,566	3,779,084
Ships and Equipment	0	0	220	0	508	728
Vehicles and Equipment	0	0	0	30	0	30
Engines and Components	0	0	0	0	0	0
Electronics and Communications	160,220	22,446	113,313	121,690	74,029	491,698
ADP	26,430	9,889	6,572	1,356	6,112	50,359
Other Equipment	33,959	32,788	8,123	25,095	15,525	115,490
RDT&E	1,949,255	2,205,997	2,296,734	2,835,820	1,880,984	11,168,790
Professional Services	1,781,410	1,162,191	1,678,779	1,846,234	4,453,325	10,921,939
Maintenance and Modifications	37,100	41,249	35,197	37,287	63,983	214,816
Miscellaneous Services	5,762	2,767	(2,046)	512	772	7,767
TOTAL	$5,566,715	$5,079,840	$5,271,757	$6,355,945	$7,550,537	$29,824,794

Materials Group (crushed gravel) accounts for 6% of sales. MM plans to expand this cyclically depressed business, which would boom if infrastructure spending increases.

Financial Outlook: MM 's portfolio of defense programs is well-positioned. Less revenue risks exist than for major platform producers. MM is a top DoD R&D contractor. DoD plans to emphasize R&D rather than hardware procurement, and this benefits MM. Management is probably over-optimistic regarding sustainability of defense segment sales, as even successful/desirable programs may be stretched out. MM is moving to increase defense operating margins. Some 4000 employees will be cut this year. Company-funded R&D and capital spending is expected to ebb, increasing free cash flow in 1992-94. Antidilutive acquisition is primary goal; share repurchase will be followed if acquisition strategy is unsuccessful.

Risks: As a major NASA contractor, MM faces substantial program risks if space budgets are cut back. Mission failure is always a risk, especially for the shuttle external fuel tanks. The Titan launcher contract with the Air Force may be renegotiated to recognize income bonuses for successful launches and to reserve failure penalties as opposed to the current procedure of immediately recognizing all contracts. Adoption of FASB 106 will produce a one time $650 million increase in liabilities in 1993.

MARTIN MARIETTA FINANCIAL SUMMARY

SEGMENT REVENUE	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Astronautics	2929	3230	3104	3125	3150	3200	3240	3270	3300	3330	3360	3400
Electron,Info,Missiles	2576	2596	2650	2700	2950	3100	3150	3250	3250	3300	3300	3300
Materials	384	398	372	360	370	390	415	445	480	505	540	572
Other	39	40	45	48	51	54	57	61	64	74	78	75
	5928	6262.9	6170.5	6233	6521	6744	6862	7026	7094	7209	7278	7347

EARNINGS MODEL	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Total Net Sales	5796	6126	6075	5921	6195	6407	6519	6675	6739	6849	6914	6980
Cost of goods sold	4485	4825	4685	4559	4770	4933	5020	5106	5156	5239	5289	5339
as a % of Sales	77.4	78.8	77.1	77	77	77	77	76.5	76.5	76.5	76.5	76.5
Deprec	207	216	225	224	226	229	233	239	244	248	253	257
SG&A Incl R&D	639	643	628	622	650	666	678	687	687	692	698	705
as a % of Sales	11.0	10.5	10.3	10.5	10.5	10.4	10.4	10.3	10.2	10.1	10.1	10.1
Oper Income	465	442	537	517	549	578	588	642	652	669	674	679
as a % of Sales	8.0	7.2	8.8	8.7	8.9	9.0	9.0	9.6	9.7	9.8	9.7	9.7
Non-operating Inc	15	22	17	15	15	15	15	16	16	16	16	16
EBIT	479	465	554	532	564	593	603	658	668	685	690	695
as a % of Sales	8.3	7.6	9.1	9.0	9.1	9.3	9.3	9.9	9.9	10.0	10.0	10.0
Interest Exp	50	50	63	57	56	54	57	63	66	67	69	72
Special Items	0	20	-70	0	0	0	0	0	0	0	0	0
Pretax Income	429	435	421	475	508	539	547	596	603	618	620	622
Taxes	122	108	108	133	142	151	153	167	169	173	174	174
Minority Interest	0	0	0	0	0	0	0	0	0	0	0	0
Operating Net	307	328	313	342	366	388	394	429	434	445	447	448
Special Charges/Gains	0	0	0	0	0	0	0	0	0	0	0	0
Reported Net Income	307	328	313	342	366	388	394	429	434	445	447	448
Pfd Div	0	0	0	0	0	0	0	0	0	0	0	0
Net for Common	307	328	313	342	366	388	394	429	434	445	447	448
Dividends	65	70	75	80	85	90	95	100	105	110	115	120
Retained Earnings	242	258	238	262	281	298	299	329	329	335	332	328
Share Repurchase	102	90	36	75	150	175	200	225	250	250	250	250

BALANCE SHEET	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Current Assets	1441	1401	1617	1599	1611	1602	1630	1669	1685	1712	1729	1745
as a % of Sales	25	23	27	27	26	25	25	25	25	25	25	25
Net Fixed Assets	1301	1341	1316	1327	1346	1372	1404	1435	1461	1488	1510	1533
as a % of Sales	22	22	22	22	22	21	22	22	22	22	22	22
Other Assets	764	869	965	1061	1201	1383	1514	1615	1687	1764	1853	1937
Total Assets	3505	3611	3897	3987	4158	4357	4547	4719	4833	4964	5092	5215
Current Liabs	926	994	948	888	929	961	978	1001	1011	1027	1037	1047
St Debt	4	30	75	15	20	20	20	20	20	20	20	20
Long-Term Debt	478	463	596	575	550	575	640	670	690	710	740	770
Other incl Def Tax	746	613	549	533	558	577	587	601	607	616	622	628
Total Liabilities	2150	2070	2093	1996	2037	2113	2205	2272	2307	2354	2399	2445
Stockholder Equity	1355	1541	1804	1991	2121	2244	2343	2447	2526	2611	2692	2770
Equity for Common	1355	1541	1804	1991	2121	2244	2343	2447	2526	2611	2692	2770
Total Liabs&Equity	3505	3611	3897	3987	4158	4357	4547	4719	4833	4964	5092	5215
LT Debt/Capital	26	23	25	22	21	20	21	21	21	21	22	22

OTHER KEY VARIABLE	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Employment, '000	65.5	62	60.5	57.0	56.0	56.3	54.8	53.9	52.5	51.2	50.0	48.4
Capital Spending	282.8	272.1	212.3	235	245	255	265	270	270	275	275	280
Net Working Capital	514	407	669	711	681	641	652	667	674	685	691	698
EBITDA	686	680	779	755	789	822	836	897	912	934	942	951
Implied free Cash Flow	354	486	172	421	517	554	504	549	570	580	592	593

KEY FIN RATIOS	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
ROE(NET/EQUITY)	0.227	0.213	0.174	0.172	0.172	0.173	0.168	0.175	0.172	0.170	0.166	0.162
ROSales(EBIT/SLS)	0.083	0.076	0.091	0.090	0.091	0.093	0.093	0.099	0.099	0.100	0.100	0.100
ATO(SLS/ASSETS)	1.654	1.697	1.559	1.485	1.490	1.470	1.434	1.415	1.394	1.380	1.358	1.338
ROA(EBIT/ASSETS)	0.137	0.129	0.142	0.133	0.136	0.136	0.133	0.140	0.138	0.138	0.135	0.133
LEVERAGE (ASS/EQ)	2.587	2.343	2.160	2.003	1.960	1.941	1.941	1.929	1.914	1.902	1.891	1.883
PRETAX/EBIT	0.896	0.936	0.759	0.893	0.901	0.909	0.906	0.905	0.902	0.902	0.899	0.896
NET/PRETAX	0.715	0.753	0.744	0.720	0.720	0.720	0.720	0.720	0.720	0.720	0.720	0.720
PAYOUT RATIO	0.2117	0.21	0.24	0.23	0.23	0.23	0.24	0.23	0.24	0.25	0.26	0.27

Note: Sales forecast assumes a $400 million electronics/missiles acquisition in 1993-94

NORTHROP CORPORATION

Northrop earned $200 million in 1991 on $5.7 billion in sales. Major business segments are aerospace and defense electronics. Government contracts account for 70% of sales. Major programs include the B-2 bomber (prime contractor), the F-18 (subcontractor with 40% of the plane), B-747 shipsets, and the classified TSSAM stealth cruise missile and BAT smart munitions programs. B-2 revenues accounted for 54% of 1991 sales. Positive cash flow has been employed to reduce debt. The debt-capital ratio has dropped from over 50% in 1989 to 24%. If cash and securities are included, the net debt/capital ratio stands at 16%.

Northrop Corporation	
Major Contracts	**Major Subcontracts**
B-2	F15 (electronic warfare)
F-18(40%)	F-18 (electronic warfare)
C-17(LTV)	C-130(electronic warfare)

Strategy: Buy commercial aerospace diversification, grow civilian technology application, and repurchase shares. Northrop will see B-2 revenues drop from about $3 billion in 1991 to only $300 million in the late 1990s, now that B-2 production is capped at 20 planes. Northrop hopes to increase civilian aerospace subcontract work to 30% of revenues, up from 10% last year. Northrop wants to make "the biggest parts of the biggest planes." Civilian technology revenue hopes are concentrated in high performance materials and control technologies such as rapid transit guidance.

Acquisitions: Acquired 49% of Vought Aircraft from LTV with the Carlyle Group in 1992. Vought is an $800 million business, split between commercial aircraft components (Boeing tail section pieces) and defense (B-2 center section, C-17 tail parts and nacelles). We assume full acquisition of the remaining 51% from Carlyle in 1995. We expect that future acquisitions may be made in defense or civilian electronics.

NORTHROP CORPORATION Prime Contract Awards (thousands of current dollars)						
	1987	1988	1989	1990	1991	5 YR TOTAL
Arms and Ordnance	$0	$58	$0	$0	$325	$383
Fire Control Equipment	17,866	4,275	23,967	16,404	15,977	78,489
Missiles and Space Vehicles	279,024	109,155	250,202	59,924	67,222	765,527
Aircraft and Equipment	44,125	28,793	23,190	13,319	2,360,973	2,470,400
Ships and Equipment	0	0	0	0	0	0
Vehicles and Equipment	0	0	0	0	0	0
Engines and Components	227	224	196	69	0	716
Electronics and Communications	405,924	100,187	57,104	98,126	290,640	951,981
ADP	3,002	68	0	0	0	3,070
Other Equipment	41,131	13,018	13,631	7,818	15,845	91,443
RDT&E	140,949	128,559	151,251	428,161	58,148	907,068
Professional Services	84,646	51,231	105,485	85,087	72,485	398,934
Maintenance and Modifications	100,810	157,246	66,428	113,081	76,156	513,721
Miscellaneous Services	4,178	3,040	5,681	3,255	0	16,154
TOTAL	$1,121,882	$595,854	$697,135	$825,244	$2,957,771	$6,197,886

Revenue Prospects: DRI expects Northrop to shrink, despite the acquisition of Vought in two stages. B-2 revenues are projected to drop sharply in 1993-1998 with the 20th plane delivered in 1997. After-market revenues are assumed to be $300 million per year. Vought revenues are about $800 million currently, but will drop with the B-2 rundown, since Vought is a major B-2 subcontractor. Vought revenues are favorably influenced in the late 1990s by increased C-17 production rates, but total revenues will probably shrink. Excluding Vought, Aerospace segment revenues are expected to be about $2.5-3 billion in the late 1990s, with F-18 programs accounting for nearly $1 billion of these. This will leave Northrop revenues at between $4.5 billion and $5.0 billion in the late 1990s.

Financial Outlook: A rundown in current assets, depreciation in excess of capital spending, and stable operating profits collectively imply a substantial increase in net free cash flow for Northrop in 1992-94. We look for Northrop to stabilize its debt/capital ratio in the 20-25% range, and thereafter use excess cash for either acquisition or share repurchase. Capital spending will need to pick up later in the decade, as civilian applications of Northrop's aerospace technology are pursued, but we expect the company to be conservative in allocating its capital to these ventures.

Risks: The largest risk facing Northrop is the possibility that its position as Boeing's largest subcontractor - enhanced by the purchase of Vought - is undermined in the late 1990s by Japanese competition. Boeing may choose to employ a greater proportion of Japanese contractors if only for geopolitical reasons, since Asia is a major sales segment for its largest planes. A minor financial risk is the likelihood of further write-offs on fixed price development contracts. Northrop has not accepted any FPD contracts since 1988. The $152 million write-off against the TSSAM FPD in 1992. is expected to be followed by a further $100 million in charges. Northrop can easily handle this. Another risk is the possibility that the F-18 E/F program fails to go into full procurement.

NORTHROP FINANCIAL SUMMARY

SEGMENT REVENUE	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Aircraft	4,008	4,130	4,278	4,000	3,600	3,200	3,000	2,800	2,800	2,800	2,800	2,800
of which B-2	2,554	2,744	3,100	2,900	2,500	2,100	1,800	1,200	900	600	300	300
Electronics	897	923	861	850	870	860	840	820	800	800	800	800
Missiles	306	456	563	550	520	500	500	500	500	500	500	500
Services	158	118	95	85	75	75	70	65	65	65	65	70
Vought					400	400	700	620	625	630	630	650
Eliminations	124	135	119	110	133	125	144	133	133	134	134	135
Net	5,244	5,492	5,678	5,375	5,332	4,910	4,966	4,672	4,657	4,661	4,661	4,685

EARNINGS MODEL	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Total Net Sales	5,248	5,490	5,694	5,375	5,332	4,910	4,966	4,672	4,657	4,661	4,661	4,685
Cost of goods sold	4,471	4,561	4,640	4,408	4,372	4,026	4,072	3,831	3,818	3,822	3,822	3,841
as a % of Sales	85	83	81	82	82	82	82	82	82	82	82	82
Deprec	221	187	171	159	154	150	147	145	146	147	148	149
SG&A Incl R&D	533	451	531	516	512	466	472	444	442	447	447	450
as a % of Sales	10	8	9	10	10	10	10	10	10	10	10	10
Oper Income	23	292	352	293	294	268	275	252	250	245	244	244
as a % of Sales	0	5	6	5	6	5	6	5	5	5	5	5
Non-operating Inc	0	116	16	15	15	15	15	16	16	16	16	16
EBIT	23	407	367	308	309	283	290	268	266	261	260	260
as a % of Sales	0	7	6	6	6	6	6	6	6	6	6	6
Interest Exp	124	95	80	52	41	38	38	39	39	37	37	37
Special Items	-11	0	-10	-152	-100	-50	0	0	0	0	0	0
Pretax Income	-112	313	277	103	168	194	252	229	227	224	223	224
Taxes	-31	102	9	31	51	58	75	69	68	67	67	67
Minority Interest	0	0	0	0	0	0	0	0	0	0	0	0
Operating Net	-81	210	268	72	118	136	176	160	159	157	156	156
Special Charges/Gains	0	0	-67	0	0	0	0	0	0	0	0	0
Reported Net Income	-81	210	201	72	118	136	176	160	159	157	156	156
Pfd Div	0	0	0	0	0	0	0	0	0	0	0	0
Net for Common	-81	210	201	72	118	136	176	160	159	157	156	156
Dividends	56	56	56	57	58	59	60	60	60	60	60	60
Retained Earnings	-137	154	145	15	60	77	116	100	99	97	96	96
Share Repurchase	0	0	0	0	50	75	100	100	125	125	125	125

BALANCE SHEET	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Current Assets	1,747	1,785	1,807	1,854	1,813	1,670	1,688	1,588	1,583	1,585	1,585	1,593
as a % of Sales	33	33	32	35	34	34	34	34	34	34	34	34
Net Fixed Assets	1,440	1,239	1,177	1,138	1,109	1,089	1,077	1,082	1,086	1,094	1,107	1,117
as a % of Sales	27	23	21	21	21	22	22	23	23	23	24	24
Other Assets	9	70	144	164	207	250	275	285	231	194	153	113
Total Assets	3,196	3,094	3,128	3,157	3,129	3,009	3,041	2,956	2,900	2,873	2,845	2,823
Current Liabs	1,655	1,214	1,196	1,075	1,066	982	993	934	931	932	932	937
St Debt	570	260	80	30	30	30	35	35	35	35	35	35
Long-Term Debt	551	691	470	400	375	375	375	375	350	350	350	350
Other incl Def Tax	115	157	279	484	480	442	447	420	419	420	420	422
Total Liabilities	2,321	2,062	1,945	1,959	1,921	1,799	1,815	1,730	1,700	1,702	1,702	1,709
Stockholder Equity	875	1,033	1,182	1,198	1,208	1,210	1,226	1,226	1,200	1,172	1,143	1,114
Equity for Common	875	1,033	1,182	1,198	1,208	1,210	1,226	1,226	1,200	1,172	1,143	1,114
Total Liabs&Equity	3,196	3,095	3,128	3,157	3,129	3,009	3,041	2,956	2,900	2,873	2,845	2,823
LT Debt/Capital	56	48	32	26	25	25	25	25	24	25	25	26

OTHER KEY VARIABLE	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Employment, '000	41	38	36	34	33	32	31	30	28	28	27	27
Capital Spending	187	121	117	120	125	130	135	150	150	155	160	160
Net Working Capital	92	571	611	779	746	687	695	654	652	653	653	656
EBITDA	244	594	539	467	463	432	437	413	412	408	408	410
Implied free Cash Flow(E	-78	-557	338	162	175	256	206	305	226	222	216	208

KEY FIN RATIOS	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
ROE(NET/EQUITY)	-0.092	0.204	0.170	0.060	0.098	0.112	0.144	0.131	0.132	0.134	0.137	0.140
ROSales(EBIT/SLS)	0.004	0.074	0.065	0.057	0.058	0.058	0.058	0.057	0.057	0.056	0.056	0.056
ATO(SLS/ASSETS)	1.642	1.774	1.821	1.703	1.704	1.632	1.633	1.581	1.606	1.622	1.639	1.660
ROA(EBIT/ASSETS)	0.007	0.132	0.117	0.097	0.099	0.094	0.095	0.091	0.092	0.091	0.091	0.092
LEVERAGE (ASS/EQ)	3.653	2.997	2.645	2.635	2.591	2.487	2.481	2.411	2.418	2.453	2.489	2.533
PRETAX/EBIT	-4.831	0.767	0.755	0.336	0.545	0.687	0.867	0.854	0.853	0.860	0.859	0.859
NET/PRETAX	0.722	0.673	0.725	0.700	0.700	0.700	0.700	0.700	0.700	0.700	0.700	0.700
PAYOUT RATIO	-0.6998	0.27	0.28	0.79	0.49	0.43	0.34	0.37	0.38	0.38	0.38	0.38

Note: Vought Sales consolidated: 49% in 1993-94, 100% in 1995-2000.

RAYTHEON COMPANY

Raytheon Company is a diversified technology-based company with 21 divisions and operating subsidiaries grouped into four segments: Electronics, Aircraft Products, Energy and Environmental, and Major Appliances. The Electronics segment accounted for $5.5 billion of the $9.3 billion in 1991 net sales. Some 54% of Raytheon's sales are to the U.S. government. Debt rating was recently upgraded from AA- to AA.

RAYTHEON COMPANY	
Major Contracts	**Major Subcontracts**
Patriot Missile System	E-8 (computers)
Beech Aircraft's Tanker Transport Training System	B-1 (electronic warfare)
AAE (Advanced Airborne Expendable Decoy)	
MIMIC (Integrated Circuit)	
RIM-7 Seasparrow Surface Missile System	
Hawk Air Defense System	

RAYTHEON COMPANY
Prime Contract Awards (thousands of current dollars)

	1987	1988	1989	1990	1991	5 YR TOTAL
Arms and Ordnance	$774	$0	$18,208	$49,751	$15,009	$83,742
Fire Control Equipment	173,788	218,486	146,042	185,526	66,581	790,423
Missiles and Space Vehicles	1,875,177	1,922,472	1,911,119	1,242,875	2,351,472	9,303,115
Aircraft and Equipment	203,929	13,717	60,390	20,079	18,502	316,617
Ships and Equipment	0	0	0	0	22,158	22,158
Vehicles and Equipment	126	(46)	282	(71)	0	291
Engines and Components	16	206	257	0	161	640
Electronics and Communications	524,564	390,021	551,931	1,319,872	524,878	3,311,266
ADP	365	535	4,169	303	133	5,505
Other Equipment	76,723	55,150	23,377	35,552	45,580	236,382
RDT&E	590,855	848,745	644,426	789,642	318,498	3,192,166
Professional Services	441,677	509,134	335,131	451,508	597,720	2,335,170
Maintenance and Modifications	114,099	152,829	172,711	183,100	220,415	843,154
Miscellaneous Services	39,103	22,356	36,193	44,056	117,744	259,452
TOTAL	$4,041,196	$4,133,605	$3,904,236	$4,322,193	$4,298,851	$20,700,081

Defense products in the Electronics segment include tactical missile systems, radars, communications systems, ECM, combat control systems, and militarized computers. Civil segment products include air traffic control systems, electronic components, marine electronics, and textbooks (D. C. Heath).

Key defense programs include: Patriot, Hawk, Standard, Sidewinder/AIM-9X, Sparrow, AMRAAM, Maverick, ALQ-184 ECM system, and various military communications, combat systems, and guidance systems.

Aircraft Products is comprised of Beech Aircraft, a $1 billion general aviation company.

The Energy and Environmental segment includes engineering and construction services for process and energy industries and environmental engineering (United Engineers, Badger Co.), seismic services, and highway construction equipment.

The Major Appliance group includes the Amana, Caloric, and Speed Queen companies.

Strategy: Sustain electronics segment revenues with foreign (Patriot) sales. Grow non-defense segments. May increase engineering/environmental market share via acquisition. Selective defense investment to maintain tactical missile market share. Modest deleverage.

Revenue Prospects: Raytheon has experienced flat revenues for the past two years, but is well-positioned to see renewed revenue growth over the remainder of the decade. Sales are expanding in the appliance, aircraft, and energy/environmental segments. End-market prospects are particularly strong for the energy/environmental segment, which could outperform our conservative revenue projections, particularly if acquisitions are made. Recent cost-cutting has reduced employment and boosted operating margins company-wide.

Operating margins will drop later in the decade. Margins are highest (13-14%) in the electronics and aircraft segments. The long-term outlook is for shrinking electronics revenues, which we expect after 1996. Near-term, electronics segment revenues will be sustained by foreign sales of Patriot. Some $2.5 billion in Kuwaiti and Saudi orders alone are pending. With operating margins in energy/environment of about 8%, operating margins for the total company will drop late in the decade as the share of this segment in total company revenues increases.

Financial Outlook: Raytheon has little long-term debt, but makes extensive use of commercial paper lines for working capital finance. management has announced an intention to deleverage modestly. DRI sees little debt risk for Raytheon, as is reflected in the company's AA rating. Acquisitions in the environmental or engineering arena may be near-term dilutive for operating earnings, but have the potential to enable the firm to ultimately improve margins within the segment.

Risks: Procurement risks exist for many Raytheon programs, with most program sizes slated to drop later in the decade as the size of the armed forces contracts. Performance risks are also a factor for some programs (AMRAAM). We see a serious risk of margin erosion in the Beechcraft commercial segment, since the general aviation market is expected to grow more competitive over time. Significant U.S. competition exists, and foreign competition is expected to intensify, possibly including low-cost Russian-produced business jets or regional turboprop airliners at some point.

RAYTHEON FINANCIAL SUMMARY

SEGMENT REVENUE	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Electronics	5,488	5,682	5,501	5,250	5,400	5,500	5,600	5,500	5,400	5,300	5,200	5,100
Aircraft Products	915	1,074	1,098	1,150	1,220	1,300	1,380	1,450	1,500	1,580	1,660	1,750
Energy and Environ	1,323	1,471	1,677	1,700	1,900	2,050	2,175	2,300	2,450	2,550	2,700	2,850
Major Appliances	1,070	1,041	998	1,050	1,100	1,170	1,250	1,300	1,365	1,425	1,505	1,550
Net	8,796	9,268	9,274	9,150	9,620	10,020	10,405	10,550	10,715	10,855	11,065	11,250

EARNINGS MODEL	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Total Net Sales	8,796	9,268	9,274	9,150	9,620	10,020	10,405	10,550	10,715	10,855	11,065	11,250
Cost of goods sold	6,715	7,088	7,046	6,945	7,282	7,565	7,856	8,018	8,143	8,250	8,409	8,550
as a % of Sales	76	76	76	76	76	76	76	76	76	76	76	76
Deprec	282	304	306	311	317	324	329	334	342	349	354	363
SG&A Incl R&D	1,054	1,077	1,101	1,080	1,106	1,152	1,197	1,213	1,243	1,270	1,306	1,339
as a % of Sales	12	12	12	12	12	12	12	12	12	12	12	12
Oper Income	746	799	821	815	915	979	1,024	984	987	987	996	998
as a % of Sales	8	9	9	9	10	10	10	9	9	9	9	9
Non-operating Inc	125	152	144	120	125	125	125	125	125	125	125	125
EBIT	871	951	965	935	1,040	1,104	1,149	1,109	1,112	1,112	1,121	1,123
as a % of Sales	10	10	10	10	11	11	11	11	10	10	10	10
Interest Exp	113	114	92	92	75	68	68	64	69	72	76	82
Special Items	0	0	0	0	0	0	0	0	0	0	0	0
Pretax Income	757	837	873	843	964	1,036	1,081	1,045	1,043	1,039	1,045	1,041
Taxes	229	280	281	278	318	342	357	345	344	343	345	343
Minority Interest	0	0	0	0	0	0	0	0	0	0	0	0
Operating Net	528	557	592	565	646	694	724	700	699	696	700	697
Special Charges/Gains	0	0	0	0	0	0	0	0	0	0	0	0
Reported Net Income	528	557	592	565	646	694	724	700	699	696	700	697
Pfd Div	0	0	0	0	0	0	0	0	0	0	0	0
Net for Common	528	557	592	565	646	694	724	700	699	696	700	697
Dividends	145	157	163	170	180	190	230	245	265	280	285	300
Retained Earnings	383	401	429	395	466	504	494	455	434	416	415	397
Share Repurchase	82	25	0	0	150	250	300	300	300	300	300	300

BALANCE SHEET	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Current Assets	3,105	3,604	3,748	3,569	3,752	3,908	4,058	4,009	4,072	4,125	4,205	4,275
as a % of Sales	35	39	40	39	39	39	39	38	38	38	38	38
Net Fixed Assets	1,456	1,532	1,517	1,546	1,579	1,605	1,631	1,667	1,700	1,727	1,773	1,809
as a % of Sales	17	17	16	17	16	16	16	16	16	16	16	16
Other Assets	778	984	823	1,308	1,567	1,762	1,897	2,113	2,205	2,287	2,343	2,388
Total Assets	5,338	6,119	6,087	6,422	6,898	7,275	7,586	7,789	7,976	8,139	8,320	8,472
Current Liabs	2,822	3,146	2,716	2,654	2,790	2,906	3,017	3,060	3,107	3,148	3,209	3,263
St Debt	1,184	1,425	1,105	900	800	800	750	800	840	880	950	990
Long-Term Debt	46	46	39	40	45	50	55	60	65	70	75	75
Other incl Def Tax	44	81	8	10	29	30	31	32	32	33	33	34
Total Liabilities	2,912	3,273	2,764	2,704	2,864	2,986	3,104	3,151	3,204	3,251	3,317	3,371
Stockholder Equity	2,426	2,846	3,323	3,718	4,034	4,289	4,483	4,638	4,772	4,888	5,003	5,101
Equity for Common	2,426	2,846	3,323	3,718	4,034	4,289	4,483	4,638	4,772	4,888	5,003	5,101
Total Liabs&Equity	5,338	6,119	6,087	6,422	6,898	7,275	7,586	7,789	7,976	8,139	8,320	8,472
Debt/Capital	34	34	26	20	17	17	15	16	16	16	17	17

OTHER KEY VARIABLE	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Employment, '000	78	77	72	66	65	64	64	63	63	62	62	62
Capital Spending	414	391	349	340	350	350	355	370	375	375	400	400
Net Working Capital	282	458	1,032	915	962	1,002	1,041	950	964	977	996	1,013
EBITDA	1,152	1,255	1,271	1,245	1,356	1,428	1,478	1,444	1,454	1,460	1,475	1,486
Implied free Cash Flow(E	610	574	257	930	884	970	1,016	1,100	995	1,000	980	988

KEY FIN RATIOS	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
ROE(NET/EQUITY)	0.218	0.196	0.178	0.152	0.160	0.162	0.162	0.151	0.146	0.142	0.140	0.137
ROSales(EBIT/SLS)	0.099	0.103	0.104	0.102	0.108	0.110	0.110	0.105	0.104	0.102	0.101	0.100
ATO(SLS/ASSETS)	1.648	1.515	1.524	1.425	1.395	1.377	1.372	1.354	1.343	1.334	1.330	1.328
ROA(EBIT/ASSETS)	0.163	0.155	0.159	0.146	0.151	0.152	0.151	0.142	0.139	0.137	0.135	0.133
LEVERAGE (ASS/EQ)	2.200	2.150	1.832	1.727	1.710	1.696	1.692	1.679	1.672	1.665	1.663	1.661
PRETAX/EBIT	0.870	0.880	0.905	0.902	0.928	0.939	0.941	0.942	0.938	0.935	0.932	0.927
NET/PRETAX	0.698	0.666	0.678	0.670	0.670	0.670	0.670	0.670	0.670	0.670	0.670	0.670
PAYOUT RATIO	0.27	0.28	0.27	0.30	0.28	0.27	0.32	0.35	0.38	0.40	0.41	0.43

GRUMMAN CORPORATION

Grumman's business mix includes aerospace, electronics, and space systems. Downsized by 22%, with cuts in all major divisions except Melbourne Systems.

GRUMMAN CORPORATION
Major Contracts
Surveillance/Target Attack Radar System)
A-6
F-14
JPATS (Joint Primary Aircraft Trainer System)
E-2 Hawkeye

GRUMMAN CORPORATION
Prime Contract Awards (thousands of current dollars)

	1987	1988	1989	1990	1991	5 YR TOTAL
Arms and Ordnance	$796	$585	$0	$0	$77	$1,458
Fire Control Equipment	144,845	1,389	8,945	10,563	10,067	175,809
Missiles and Space Vehicles	87	0	359	0	1,513	1,959
Aircraft and Equipment	1,460,424	1,419,836	1,137,342	1,630,628	631,788	6,280,018
Ships and Equipment	0	0	53	0	0	53
Vehicles and Equipment	0	0	0	0	0	0
Engines and Components	5,148	331	(42)	74	(707)	4,804
Electronics and Communications	32,616	11,596	45,611	(15,661)	10,075	84,237
ADP	9,778	27,769	31,012	110,876	35,013	214,448
Other Equipment	63,352	112,336	152,856	93,565	68,094	490,203
RDT&E	1,040,089	917,050	606,685	515,300	1,366,398	4,445,522
Professional Services	74,499	110,090	154,122	189,943	216,397	745,051
Maintenance and Modifications	710,044	336,367	310,200	297,687	332,480	1,986,778
Miscellaneous Services	3,596	(259)	7,655	7,519	1,099	19,610
TOTAL	$3,545,274	$2,937,090	$2,454,798	$2,840,494	$2,672,294	$14,449,950

Grumman's near monopoly on Navy aircraft has all but disappeared. Grumman suffered a major blow when the Navy canceled a large F-14 upgrade project, but may remain in the airframe business if it is awarded the contract for the Joint Primary Aircraft Trainer System (JPATS) in 1994.

Strategy: Seek AX and JPATS contract wins to maintain prime contractor status. Use excess cash flow to bolster electronics. Manage downsizing to maintain favorable aerospace margins.

Revenue Prospects: Aggressive steps to control costs and shrink production employment have enabled Grumman to increase its free cash flow in the past two years. The debt/capital ratio has dropped to a much less alarming 32% at midyear. Despite an anticipated 25% drop in aerospace revenues between 1991 and 1993, DRI expects Grumman to sustain free cash flow well in excess of $100 million per year, with interest expense falling by fully one half from about $100 million to $50 million annually.

Acquisitions: Grumman may use acquisitions to bolster its defense electronics business. Grumman is now expected to emulate General Dynamics and focus on cash generation as a corporate objective.

Financial Outlook: Grumman faces adverse prospects in its aerospace business, which comprises over 70% of its business. We see Grumman managing its aerospace business for cash, emphasizing after-market and remanufacture of the 60% share of existing naval aircraft manufactured by the company. Growth prospects are more favorable in electronics segment.

Grumman is likely to remain profitable, but will be a much smaller company by mid-decade. We remain skeptical that Grumman will be able to maintain its prime contractor status in combat aircraft. AX development and prototyping was funded in the recent budget, and Grumman leads a strong team. But aerospace revenues are set for a sustained decline.

GRUMMAN FINANCIAL SUMMARY

SEGMENT REVENUE	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Aerospace	2,533	2,922	2,896	2,400	2,200	2,100	1,900	1,900	1,950	2,000	2,050	2,050
Electronics	446	493	505	525	550	600	650	700	750	750	800	800
Special Purp Vehicles	399	391	366	350	350	340	340	340	345	350	355	360
Subtotal	3,378	3,806	3,767	3,275	3,100	3,040	2,890	2,940	3,045	3,100	3,205	3,210

EARNINGS MODEL	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Total Sales	3,506	3,990	3,963	3,439	3,255	3,192	3,035	3,087	3,197	3,255	3,365	3,371
Cost of goods sold	3,137	3,598	3,584	3,095	2,930	2,873	2,731	2,778	2,878	2,930	3,029	3,033
as a % of Sales	89	90	90	90	90	90	90	90	90	90	90	90
Deprec	112	105	94	82	77	68	66	65	64	65	66	67
SG&A Incl R&D	108	111	124	103	94	93	88	90	93	94	98	98
as a % of Sales	3	3	3	3	3	3	3	3	3	3	3	3
Oper Income	149	176	161	158	154	158	149	154	163	167	173	173
as a % of Sales	4	4	4	5	5	5	5	5	5	5	5	5
Non-operating Inc	57	53	76	65	65	65	60	55	55	50	50	50
EBIT	206	229	237	223	219	223	209	209	218	217	223	223
as a % of Sales	6	6	6	6	7	7	7	7	7	7	7	7
Interest Exp	110	100	87	69	61	60	56	48	42	43	43	43
Special Items	0	0	-46	0	0	0	0	0	0	0	0	0
Pretax Income	96	128	103	155	159	163	153	162	176	174	181	180
Taxes	29	42	4	48	49	51	47	50	54	54	56	56
Operating Net	67	86	99	107	109	113	106	112	121	120	125	124
Special Charges/Gains	0	0	0	0	0	0	0	0	0	0	0	0
Reported Net Income	67	86	99	107	109	113	106	112	121	120	125	124
Pfd Div	4	4	4	4	4	4	4	4	4	4	4	4
Net for Common	63	82	95	103	105	109	102	108	117	116	121	120
Dividends	33	33	33	39	41	44	47	50	52	54	56	57
Retained Earnings	30	49	62	64	64	65	55	58	65	62	65	63
Net Share Repurch	6	-1	-22	0	0	0	0	0	0	0	0	0
EPS	1.91	2.48	2.88	3.02	3.10	3.20	2.99	3.16	3.45	3.41	3.55	3.53

BALANCE SHEET	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Current Assets	1,849	1,746	1,720	1,700	1,602	1,600	1,587	1,544	1,599	1,628	1,683	1,685
as a % of Sales	53	44	43	48	48	49	49	50	50	50	50	50
Net Fixed Assets	539	478	434	404	379	367	360	357	359	364	371	378
as a % of Sales	15	12	11	12	12	11	12	12	11	11	11	11
Other Assets	203	230	209	161	233	233	211	251	329	366	388	442
Total Assets	2,591	2,454	2,363	2,265	2,214	2,200	2,157	2,152	2,286	2,358	2,441	2,505
Current Liabs	760	558	443	413	358	351	334	340	352	358	370	371
St Debt	103	30	10	10	52	82	60	73	30	30	30	30
Long-Term Debt	846	752	712	630	580	512	442	370	420	420	420	420
Other incl Def Tax	130	244	224	206	195	192	182	185	192	195	202	202
Total Liabilities	1,736	1,554	1,379	1,249	1,133	1,055	958	895	964	973	992	993
Stockholder Equity	855	900	984	1,048	1,112	1,177	1,231	1,289	1,354	1,416	1,481	1,544
Equity for Common	818	868	952	1,016	1,080	1,145	1,199	1,257	1,322	1,384	1,449	1,512
Total Liabs&Equity	2,591	2,454	2,363	2,265	2,214	2,200	2,157	2,152	2,286	2,358	2,441	2,505
LT Debt/Capital	50	46	42	38	34	30	26	22	24	23	22	21

OTHER KEY VARIABL	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
# of Common Shares	33	33	34	34	34	34	34	34	34	34	34	34
Employment, '000	29	26	24	21	20	19	18	18	19	19	19	19
Capital Spending	66	50	55	52	52	56	59	62	66	70	72	74
Net Working Capital	1,089	1,188	1,277	1,287	1,244	1,249	1,253	1,204	1,247	1,269	1,312	1,314
EBITDA	318	334	331	306	296	292	275	274	282	281	289	289
Implied free Cash Flow(	237	184	187	243	288	231	212	261	173	189	174	213

KEY FIN RATIOS	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
EPS	1.91	2.48	2.88	3.02	3.10	3.20	2.99	3.16	3.45	3.41	3.55	3.53
ROE(NET/EQUITY)	0.08	0.09	0.10	0.10	0.10	0.09	0.08	0.09	0.09	0.08	0.08	0.08
ROSales(EBIT/SLS)	0.06	0.06	0.06	0.06	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07
ATO(SLS/ASSETS)	1.35	1.63	1.68	1.52	1.47	1.45	1.41	1.43	1.40	1.38	1.38	1.35
ROA(EBIT/ASSETS)	0.08	0.09	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.09	0.09	0.09
LEVERAGE (ASS/EQ)	3.17	2.83	2.48	2.23	2.05	1.92	1.80	1.71	1.73	1.70	1.68	1.66
PRETAX/EBIT	0.47	0.56	0.43	0.69	0.72	0.73	0.73	0.77	0.81	0.80	0.81	0.81
NET/PRETAX	0.65	0.64	0.92	0.66	0.66	0.67	0.66	0.67	0.67	0.67	0.67	0.67
PAYOUT RATIO	0.53	0.40	0.35	0.38	0.39	0.40	0.46	0.46	0.44	0.47	0.46	0.47

Note: 1991 Net share repurchase includes equity contrib to joint venture

TEXTRON CORPORATION

Textron is a diversified company involved in aerospace, commercial products and financial services. The company produces helicopters, propulsion systems, general aviation aircraft, and defense systems. Textron was the 20th largest defense contractor in 1991. The company's propulsion business was a top performer, with continued sales of Army tank engines. Textron is planning to expand its commercial aerospace activity but this depends in part on the survival of the V-22 tilt rotor aircraft. Its debt is rated BBB with a 36% Debt/Capital ratio.

TEXTRON INCORPORATED	
Major Contracts	**Major Subcontracts**
V-22	B-2
Peacekeeper Missile (MX)	
MX Missile Rail Garrison	
Minuteman III Missile	
OH-58 (Foreign Military Sales)	
AH-1 (Foreign Military Sales)	

Strategy: Reduce defense exposure by enlarging commercial aerospace activity.

Textron's Aerospace segment accounted for just over 40% of revenues and operating earnings in 1991, earning $335 million on $3.4 billion in sales. The $600 million purchase of Cessna from General Dynamics in January 1992 adds some $750 million in sales, but this was partially offset by sharp declines in Bell Helicopter and Textron Lycoming engine sales. Textron Lycoming produces turbines for aircraft and tanks. The falloff in tank engine production and slower aircraft engine sales led Textron to announce a 40% reduction in Lycoming production workers this month.

Revenue Prospects: Textron has adequate financial capacity to afford Cessna. Parent company debt (excluding the finance subsidiaries) dropped $100 million from $1.9 billion to $1.8 billion in 1991. Interest expense in 1992 is estimated at about $250 million, under 30% of pretax operating earnings. Depreciation exceeds capital spending for the company, particularly in Propulsion and Systems aerospace segments.

TEXTRON INCORPORATED Prime Contract Awards (thousands of current dollars)						
	1987	*1988*	*1989*	*1990*	*1991*	*5 YR TOTAL*
Arms and Ordnance	$56,783	$27,799	$41,839	$30,079	$1,632	$158,132
Fire Control Equipment	77,870	45,816	48,314	17,843	10,286	200,129
Missiles and Space Vehicles	232,758	222,069	151,825	134,409	34,341	775,402
Aircraft and Equipment	181,550	308,973	297,578	188,638	293,850	1,270,589
Ships and Equipment	216,044	16,303	5,492	194,501	211,438	643,778
Vehicles and Equipment	9,825	4,851	6,796	2,413	5,509	29,394
Engines and Components	1,026,262	380,534	234,059	475,933	209,708	2,326,496
Electronics and Communications	155,892	213,806	89,534	60,101	31,876	551,209
ADP	14,797	30,133	11,066	4,916	600	61,512
Other Equipment	227,236	177,237	165,527	109,313	84,550	763,863
RDT&E	333,717	357,699	159,614	244,175	333,850	1,429,055
Professional Services	130,682	66,873	59,958	45,024	29,384	331,921
Maintenance and Modifications	109,241	212,182	82,303	82,078	76,039	561,843
Miscellaneous Services	8,963	4,383	8,189	6,417	5,431	33,383
TOTAL	$2,781,620	$2,068,658	$1,362,094	$1,595,840	$1,328,494	$9,136,706

Bell and Cessna commercial sales will form the core of future Aerospace revenues.

Inevitable declines in engine revenues are to be ameliorated by pursuing after-market business and service business currently performed by armed forces personnel. Among defense programs, the V-22 Osprey survived in conference. Kiowa Warrior procurement drops sharply after 1996.

Textron's finance subsidiary is a source of strength. Avco Financial and Paul Revere Insurance generated 40% of operating income in 1991. Consumer loan losses at Avco and commercial losses at Textron Financial have been modest despite recession, so the finance segment has performed far better than finance subsidiaries at some other industrial conglomerates.

Financial Outlook: The commercial segment is profitable despite recession. Auto products are the largest business in the commercial division. This division has been profitable, but a major earnings increase must await a recovery in the U.S. auto market.

Risks: Textron faces aerospace segment risks in mid-decade, particularly in helicopters, where global excess capacity is great. Anticipated increases in commercial sales may not be realized. Textron anticipates a revival in both general aviation and in commercial helicopter sales as the world recovery takes hold, since general aviation correlates with trends in corporate profits. On the other hand, upside potential exists if Bell is successful in increasing sales in Asian and Latin American markets.

TEXTRON FINANCIAL SUMMARY

SEGMENT REVENUE	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Aircraft	1,079	1,195	1,256	1,650	1,750	1,850	1,950	2,075	2,200	2,300	2,400	2,550
Propulsion	1,331	1,328	1,221	1,050	950	850	700	700	725	750	750	770
Systems	971	1,115	947	1,020	1,000	1,000	1,050	1,150	1,230	1,310	1,350	1,490
Aerospace	3,381	3,638	3,424	3,720	3,700	3,700	3,700	3,925	4,155	4,360	4,500	4,810
Commercial	1,892	1,832	1,787	1,900	1,980	2,100	2,230	2,363	2,500	2,655	2,814	2,990
Net Nonfinancial	5,273	5,470	5,211	5,620	5,680	5,800	5,930	6,288	6,655	7,015	7,314	7,800
Financial	2,158	2,444	2,612	2,700	2,850	3,000	3,140	3,300	3,465	3,630	3,800	4,000
Net	7,431	7,915	7,823	8,320	8,530	8,800	9,070	9,588	10,120	10,645	11,114	11,800

EARNINGS MODEL	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Total Net Sales	7,431	7,915	7,823	8,320	8,530	8,800	9,070	9,588	10,120	10,645	11,114	11,800
Cost of goods sold	6,082	6,464	6,368	6,781	6,952	7,172	7,392	7,814	8,248	8,676	9,058	9,617
as a % of Sales	82	82	81	82	82	82	82	82	82	82	82	82
Deprec	214	220	223	214	218	228	238	247	259	273	288	304
SG&A Incl R&D	0	0	0	0	0	0	0	0	0	0	0	0
as a % of Sales	0	0	0	0	0	0	0	0	0	0	0	0
Oper Income	1,134	1,231	1,232	1,325	1,360	1,400	1,440	1,527	1,613	1,696	1,768	1,879
as a % of Sales	15	16	16	16	16	16	16	16	16	16	16	16
Non-operating Inc	10	3	18	15	15	15	15	15	15	15	15	15
EBIT	1,143	1,234	1,249	1,340	1,375	1,415	1,455	1,542	1,628	1,711	1,783	1,894
as a % of Sales	15	16	16	16	16	16	16	16	16	16	16	16
Interest Exp	733	775	754	748	766	793	826	856	896	942	978	1,025
Special Items	0	0	0	0	0	0	0	0	0	0	0	0
Pretax Income	410	459	495	592	609	622	629	685	732	769	805	870
Taxes	142	176	196	228	234	239	242	264	282	296	310	335
Minority Interest	0	0	0	0	0	0	0	0	0	0	0	0
Operating Net	269	283	300	364	374	382	387	421	450	473	495	535
Special Charges/Gains	-10	0	0	0	0	0	0	0	0	0	0	0
Reported Net Income	259	283	300	364	374	382	387	421	450	473	495	535
Pfd Div	1	1	1	1	1	1	1	1	1	1	1	1
Net for Common	258	281	298	363	373	381	386	420	449	472	494	534
Dividends	88	87	88	100	115	120	125	130	130	135	140	150
Retained Earnings	170	194	210	263	258	261	261	290	319	337	354	384
Share Repurchase	0	99	0	0	25	50	75	100	150	150	175	200

BALANCE SHEET	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Current Fin Assets	5,300	5,890	6,249	6,480	6,840	7,200	7,536	7,920	8,316	8,712	9,120	9,600
Times Fin Sales	2	2	2	2	2	2	2	2	2	2	2	2
Other Current Assets	2,038	2,154	2,101	2,192	2,215	2,262	2,313	2,452	2,595	2,736	2,852	3,042
%of NonFin Sales	39	39	40	39	39	39	39	39	39	39	39	39
Net Fixed Assets	1,011	1,001	972	993	1,035	1,082	1,124	1,177	1,243	1,309	1,381	1,457
as a % of Sales	19	18	19	18	18	19	19	19	19	19	19	19
Other Assets	5,441	5,846	6,415	6,592	6,813	7,071	7,307	7,655	8,023	8,306	8,663	8,981
Total Assets	13,790	14,891	15,737	16,257	16,902	17,615	18,280	19,204	20,177	21,064	22,017	23,080
Current Liabs	2,062	2,088	2,064	2,163	2,218	2,288	2,358	2,493	2,631	2,768	2,890	3,068
Fin Co Debt	4,661	5,319	5,664	5,859	6,185	6,510	6,814	7,161	7,519	7,877	8,246	8,680
Long-Term Debt	1,956	1,925	1,820	1,800	1,750	1,750	1,750	1,800	1,900	1,900	2,000	2,000
Other incl Def Tax	2,564	2,897	3,261	3,245	3,327	3,432	3,537	3,739	3,947	4,152	4,334	4,602
Total Liabilities	11,243	12,229	12,809	13,067	13,479	13,980	14,459	15,193	15,997	16,696	17,470	18,350
Stockholder Equity	2,547	2,662	2,927	3,190	3,423	3,635	3,821	4,011	4,180	4,367	4,547	4,730
Preferred Equity	22	21	19	19	19	19	19	19	19	19	19	19
Equity for Common	2,525	2,641	2,908	3,171	3,404	3,616	3,802	3,992	4,161	4,348	4,528	4,711
Total Liabs&Equity	13,790	14,891	15,736	16,257	16,902	17,615	18,280	19,204	20,177	21,064	22,017	23,080
Debt/Capital	43	42	38	36	34	32	31	31	31	30	31	30

OTHER KEY VARIABLE	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Employment, '000	58	54	52	47	46	46	46	47	47	48	48	49
Capital Spending	240	191	156	235	260	275	280	300	325	340	360	380
Net Working Capital	-24	66	37	29	-3	-26	-46	-41	-36	-32	-37	-26
EBITDA	1,358	1,454	1,472	1,554	1,593	1,643	1,693	1,789	1,887	1,984	2,071	2,198
Implied free Cash Flow(E	384	399	591	579	598	598	606	627	661	699	739	782

KEY FIN RATIOS	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
ROE(NET/EQUITY)	0.10	0.11	0.10	0.11	0.11	0.11	0.10	0.11	0.11	0.11	0.11	0.11
ROSales(EBIT/SLS)	0.15	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16
ATO(SLS/ASSETS)	0.54	0.53	0.50	0.51	0.50	0.50	0.50	0.50	0.50	0.51	0.50	0.51
ROA(EBIT/ASSETS)	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08
LEVERAGE (ASS/EQ)	5.46	5.64	5.41	5.13	4.96	4.87	4.81	4.81	4.85	4.84	4.86	4.90
PRETAX/EBIT	0.36	0.37	0.40	0.44	0.44	0.44	0.43	0.44	0.45	0.45	0.45	0.46
NET/PRETAX	0.63	0.61	0.60	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61
PAYOUT RATIO	0.34	0.31	0.30	0.28	0.31	0.31	0.32	0.31	0.29	0.29	0.28	0.28

Note: Debt/Capital Ratio Excludes Fin Co debt. SG&A not separately reported.

WESTINGHOUSE ELECTRIC CORPORATION

Westinghouse is a technology-based multi-industry company operating in broadcasting, defense electronics, financial services, and the industrial, construction, and electric utility markets. Revenues in 1991 were $12.8 billion. The company's senior debt was recently downgraded to A-, because of past and expected future losses in Westinghouse Financial Services (WSFI), and weakness in economically sensitive business segment profits. The parent company debt/capital ratio stood at 24% in early 1992.

WESTINGHOUSE ELECTRIC CORPORATION	
Major Contracts	**Major Subcontracts**
Mk 48 ADCAP (Advanced Capability Heavyweight Torpedo)	F-15 (electronic warfare)
GPS (Global Positioning System)	F-18 (electronic warfare)
NAAWS (NATO Anti-Air Warfare System)	F-16 (electronic warfare, radar)
MX Missile Rail Garrison	F-22 (radar)
Electronic Systems	RAH-66 (controls)
Radar Systems	F-14 (electronic warfare)
	E-3 (radar)
	Trident II (launcher)
	MX (propulsion)

The electronics segment accounts for 25% of company revenues. Defense electronics products include surveillance and fire control radars, command and control systems, electronic countermeasures, sensors, missile-launching and handling equipment, torpedoes, sonar, and communications.

Strategy: Aggressively shrink Westinghouse Financial Services. Liquidate troubled assets. Cut the dividend and issue stock to preserve capital adequacy. Improve margins in industrial businesses by selective cost-cutting. Wait for economic recovery to improve earnings in economically-sensitive businesses.

Revenue Prospects: Westinghouse has suffered revenue erosion in the past two years, since many of its capital goods businesses are highly exposed to the business cycle. Broadcast revenues have also suffered, due to recession-related weakness in advertising. But despite the state of the economy, Westinghouse earned about $1.7 billion in operating profits in 1991. Margins average some 8.5% of sales. The company's base businesses are sound.

WESTINGHOUSE ELECTRIC CORPORATION Prime Contract Awards (thousands of current dollars)	1987	1988	1989	1990	1991	5 YR TOTAL
Arms and Ordnance	$12,160	$18,617	$102,855	$143,898	$258,983	$536,513
Fire Control Equipment	113,291	38,194	28,031	139,696	47,903	367,115
Missiles and Space Vehicles	200,588	190,456	141,667	37,168	80,570	650,449
Aircraft and Equipment	607	912	813	913	4,887	8,132
Ships and Equipment	5,416	70,272	50,683	3,160	(5,375)	124,156
Vehicles and Equipment	2	0	0	0	0	2
Engines and Components	7,419	5,351	5,566	6,528	95,996	120,860
Electronics and Communications	660,300	599,516	458,294	1,103,382	683,997	3,505,489
ADP	3,422	603	75	1,560	948	6,608
Other Equipment	318,937	662,859	280,179	176,103	60,260	1,498,338
RDT&E	424,700	407,442	553,099	717,343	567,063	2,669,647
Professional Services	1,671,867	1,317,339	2,237,861	3,144,169	4,074,564	12,445,800
Maintenance and Modifications	17,777	37,559	21,647	15,967	21,990	114,940
Miscellaneous Services	21,341	51,085	9,676	6,943	3,041	92,086
TOTAL	$3,457,827	$3,400,205	$3,890,446	$5,496,830	$5,894,827	$22,140,135

Restructuring: Unfortunately, Westinghouse Financial Services has experienced disastrous losses among its real estate loan, leveraged transaction, leasing, and high yield bond assets. Provisions were made for $1.7 billion in troubled asset write-offs in 1991. The Parent dividend was cut, $500 million in preferred stock was issued, and a $6 billion bank credit line arranged. These steps were dilutive to shareholder value in an accounting sense, but were necessary to preserve capital.

Going forward, some 40% of the $10 billion WSFI portfolio is troubled or potentially troubled, according to some reports. This implies that WSFI write downs will likely drag down earnings for several more years. Despite this, Parent company cash flow is sufficiently strong that the impact will be confined to shareholder value and cash flows to shareholders. The Parent company should not be fatally weakened by WSFI. Top management has chosen to aggressively shrink WSFI total assets, rather than try to ride out the current depressed real estate environment.

Financial Outlook: DRI believes that Westinghouse intends to ride out the recession with its current structure rather than sell divisions for cash. If asset sales were contemplated, the Broadcasting businesses might be a logical candidate for sale.

Despite an expected stagnation in defense electronics revenues, economic recovery should benefit most Westinghouse divisions, including Broadcasting, Industries, Power, and Knoll (office furniture). This should increase operating profits from $1.7 billion to $2.3 billion or more by 1995. This earnings flow appears adequate to absorb future WSFI write downs.

WESTINGHOUSE FINANCIAL SUMMARY

SEGMENT REVENUE	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Broadcasting	755	858	832	870	900	940	980	1,020	1,070	1,110	1,160	1,200
Electronic Systems	2,948	3,196	3,245	2,900	3,000	3,100	3,150	3,200	3,200	3,200	3,250	3,300
Environmental	1,221	1,347	1,191	1,200	1,350	2,700	2,550	2,450	2,500	2,550	2,600	2,650
Industries	3,599	3,442	3,378	3,450	3,600	3,700	3,880	4,000	4,200	4,350	4,500	4,700
Knoll	177	422	673	700	720	750	775	820	860	900	950	1,000
Power	2,000	2,442	2,651	2,900	3,100	3,300	3,500	3,750	4,000	4,300	4,600	4,900
Divested and other	1,488	310	64	200	0	0	0	0	0	0	0	0
Net Nonfinancial	12,188	12,017	12,034	12,220	12,670	14,490	14,835	15,240	15,830	16,410	17,060	17,750
Financial	1,065	1,209	1,064	800	700	650	600	600	625	650	650	650
Eliminations	409	311	304	260	267	303	309	317	329	341	354	368
Net	12,844	12,915	12,794	12,760	13,103	14,837	15,126	15,523	16,126	16,719	17,356	18,032

EARNINGS MODEL	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Total Net Sales	12,844	12,915	12,794	12,760	13,103	14,837	15,126	15,523	16,126	16,719	17,356	18,032
Cost of goods sold	8,645	9,437	8,787	8,766	8,910	10,015	10,210	10,478	10,885	11,285	11,715	12,172
as a % of Sales	67	73	69	69	68	68	68	68	68	68	68	68
Deprec	334	363	378	379	376	377	386	397	410	423	438	453
SG&A Incl R&D	1,810	1,835	1,915	1,943	1,964	2,174	2,225	2,286	2,375	2,462	2,559	2,663
as a % of Sales	15	15	16	16	16	15	15	15	15	15	15	15
Oper Income	2,055	1,280	1,714	1,672	1,853	2,272	2,305	2,362	2,457	2,549	2,644	2,745
as a % of Sales	16	10	13	13	14	15	15	15	15	15	15	15
Non-operating Inc	117	173	28	25	25	25	25	25	25	25	25	25
EBIT	2,172	1,453	1,742	1,697	1,878	2,297	2,330	2,387	2,482	2,574	2,669	2,770
as a % of Sales	17	11	14	13	14	15	15	15	15	15	15	15
Interest Exp	912	1,025	998	900	850	800	850	900	950	950	1,000	1,000
Special Items	15	0	-1,840	-300	-300	-200	0	0	0	0	0	0
Pretax Income	1,275	428	-1,096	497	728	1,297	1,480	1,487	1,532	1,624	1,669	1,770
Taxes	340	144	-25	169	247	441	503	506	521	552	567	602
Minority Interest	13	16	15	0	0	0	0	0	0	0	0	0
Operating Net	922	268	-1,086	328	480	856	977	981	1,011	1,072	1,101	1,168
Special Charges/Gains	0	0	0	0	0	0	0	0	0	0	0	0
Reported Net Income	922	268	-1,086	328	480	856	977	981	1,011	1,072	1,101	1,168
Pfd Div	0	0	0	40	40	40	40	40	40	40	40	40
Net for Common	922	268	-1,086	288	440	816	937	941	971	1,032	1,061	1,128
Dividends	334	392	433	250	275	300	300	300	300	300	300	300
Retained Earnings	588	-124	-1,519	38	165	516	637	641	671	732	761	828
Net Share Repurchase	0	363	-1,368	-500	0	0	0	0	0	0	0	0

BALANCE SHEET	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Fin Co Assets	9,853	12,016	10,423	7,840	6,860	6,370	5,880	5,880	6,125	6,370	6,370	6,370
Times Fin Sales	9	10	10	10	10	10	10	10	10	10	10	10
Net Fixed Assets	2,381	2,506	2,526	2,507	2,511	2,574	2,648	2,731	2,821	2,918	3,020	3,127
as a % of Sales	20	21	21	21	20	18	18	18	18	18	18	18
Other Assets	8,080	7,511	7,210	7,145	7,337	8,309	8,471	8,693	9,031	9,363	9,719	10,098
Total Assets	20,314	22,033	20,159	17,492	16,708	17,253	16,999	17,304	17,977	18,651	19,110	19,595
Current Liabs	3,419	3,818	4,600	3,116	3,231	3,695	3,783	3,886	4,037	4,185	4,350	4,526
Other nondebt Liabs	1,756	2,049	2,087	1,418	1,470	1,681	1,721	1,768	1,836	1,904	1,979	2,059
Fin Co Debt	3,621	5,160	4,016	3,600	3,150	2,925	2,700	2,700	2,813	2,925	2,925	2,925
Parent Debt	744	931	1,264	1,400	1,500	1,400	1,300	1,400	1,500	1,700	2,100	2,100
Total Liabilities	15,930	18,136	16,413	13,209	12,259	12,288	11,397	11,061	11,063	11,005	10,702	10,360
Stockholder Equity	4,384	3,897	3,746	4,284	4,449	4,965	5,602	6,243	6,914	7,646	8,407	9,236
Preferred Equity	0	0	0	500	500	500	500	500	500	500	500	500
Equity for Common	4,384	3,897	3,746	3,784	3,949	4,465	5,102	5,743	6,414	7,146	7,907	8,736
Total Liabs&Equity	20,314	22,033	20,159	17,492	16,708	17,253	16,999	17,304	17,977	18,651	19,110	19,595
Debt/Capital	15	19	25	25	25	22	19	18	18	18	20	19

OTHER KEY VARIABL	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Employment, '000	122	116	114	114	109	120	118	118	120	123	124	124
Capital Spending	420	401	363	360	380	440	460	480	500	520	540	560

KEY FIN RATIOS	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
ROE(NET/EQUITY)	0.21	0.07	-0.29	0.08	0.11	0.18	0.18	0.16	0.15	0.14	0.13	0.13
ROSales(EBIT/SLS)	0.17	0.11	0.14	0.13	0.14	0.15	0.15	0.15	0.15	0.15	0.15	0.15
ATO(SLS/ASSETS)	0.63	0.59	0.63	0.73	0.78	0.86	0.89	0.90	0.90	0.90	0.91	0.92
ROA(EBIT/ASSETS)	0.11	0.07	0.09	0.10	0.11	0.13	0.14	0.14	0.14	0.14	0.14	0.14
LEVERAGE (ASS/EQ)	4.63	5.65	5.38	4.62	4.23	3.86	3.33	3.01	2.80	2.61	2.42	2.24
PRETAX/EBIT	0.59	0.29	-0.63	0.29	0.39	0.56	0.64	0.62	0.62	0.63	0.63	0.64
NET/PRETAX	0.72	0.63	0.99	0.58	0.61	0.63	0.63	0.63	0.63	0.64	0.64	0.64
PAYOUT RATIO	0.36	1.46	-0.40	0.87	0.62	0.37	0.32	0.32	0.31	0.29	0.28	0.27

Nonincome charges to shareholder equity included in net share repurchase

Note: Debt/Capital Ratio Excludes Fin Co debt

TRW INCORPORATED

TRW is a technology-based conglomerate composed of a $5 billion auto components business, a $3 billion aerospace business, and a $700 million information services business consisting of credit and real estate reporting. TRW is in the process of restructuring to reduce costs under a new CEO. TRW is A- rated, with a relatively high debt/capital ratio of 42%.

TRW INCORPORATED	
Major Contracts	**Major Subcontracts**
Brilliant Eyes [SDI]	F-22 (communications, navigation)
GBFEL (Ground-Based Free Electron Laser) [SDI]	UH-60 (electronic warfare)
MIMIC (Microwave and Millimeter Monolithic Integrated Circuit)	RAH-66 (electronic warfare, navigation)

TRW INCORPORATED
Prime Contract Awards (thousands of current dollars)

	1987	1988	1989	1990	1991	5 YR TOTAL
Arms and Ordnance	($913)	($80)	$91	$248	$6,438	$5,784
Fire Control Equipment	272	402	68	26	836	1,604
Missiles and Space Vehicles	217,639	303,565	536,193	341,860	222,808	1,622,065
Aircraft and Equipment	214	0	87	362	0	663
Ships and Equipment	0	0	0	0	0	0
Vehicles and Equipment	1,142	1,363	734	4,373	1,421	9,033
Engines and Components	14,723	7,496	3,197	2,287	3,793	31,496
Electronics and Communications	179,327	97,972	61,447	94,705	129,114	562,565
ADP	3,870	9,020	5,231	18,768	18,875	55,764
Other Equipment	7,135	4,165	4,959	4,703	2,196	23,158
RDT&E	680,451	734,087	669,657	640,781	514,536	3,239,512
Professional Services	162,008	203,787	187,389	216,981	259,971	1,030,136
Maintenance and Modifications	11,010	16,477	34,993	45,029	17,183	124,692
Miscellaneous Services	789	31,281	9,977	4,588	1,193	47,828
TOTAL	$1,277,667	$1,409,535	$1,514,023	$1,374,711	$1,178,364	$6,754,300

Strategy: Grow technology-based automotive components business. Restructure to cut costs. Increase program selectivity in aerospace to maintain acceptable margins on a declining revenue base. Selective divestitures of low margin operations. Use gains to reduce debt.

Divestitures: TRW sold its European piston business last year. This year the TRW after- market auto engine parts business was sold to Federal Mogul from $215 million.

Revenue Prospects: TRW has invested heavily in technology-based auto components capacity, and is seeing a sharp sales increase. The company has particularly strong positions in airbags and in automatic rack and pinion steering assemblies. Auto segment sales are expected to continue increasing sharply next year. DRI sees automotive revenue gains in excess of 50% over the next six years, and the segment could double under optimistic scenarios.

By contrast, the aerospace segment will see shrinking revenues. Margins look solid, however. TRW's aerospace business is concentrated in satellite and space systems, defense electronics and avionics. Backlog at the end of 1991 was $3.8 billion, including the NASA X-ray Facility satellite, and avionics contracts on the F-22 and Commanche programs.

Financial Outlook: DRI expects TRW's cash flow to be bolstered by recent staff cuts and other savings. Proceeds will be used to reduce debt levels to a point where acquisitions become possible. Currently TRW is selling, not buying, businesses, to improve overall margins and reduce debt load. Capital spending has been high to grow airbag and steering production capacity. DRI expects capital spending to remain robust, since we see the OEM market growing more competitive over the remainder of the decade. TRW is not alone in targeting technology-based auto programs, but is ahead of some other firms in high value programs such as airbags.

Risks: The chief financial risk for TRW is disappointment in realizable margins in the latter 1990s as the OEM auto technology market grows more crowded. TRW's auto business also faces near-term recession risks in Europe, where auto market prospects are weakening in Germany, Italy, and Spain.

TRW FINANCIAL SUMMARY

SEGMENT REVENUE	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Automotive	3,436	4,079	4,017	4,600	5,100	5,400	5,800	6,100	6,400	6,800	7,200	7,600
Space and Defense	3,185	3,311	3,111	2,900	2,800	2,700	2,600	2,550	2,550	2,600	2,600	2,600
Information Systems	705	760	770	760	625	650	675	700	700	700	700	700
Other	14	19	15	10	10	10	10	10	10	10	10	10
Net	7,340	8,169	7,913	8,270	8,535	8,760	9,085	9,360	9,660	10,110	10,510	10,910

EARNINGS MODEL	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Total Net Sales	7,340	8,169	7,913	8,270	8,535	8,760	9,085	9,360	9,660	10,110	10,510	10,910
Cost of goods sold	5,430	6,066	5,915	6,161	6,359	6,526	6,814	7,067	7,293	7,633	7,935	8,237
as a % of Sales	74	74	75	75	75	75	75	76	76	76	76	76
Deprec	349	381	392	408	385	394	424	450	473	495	517	536
SG&A Incl R&D	1,036	1,171	1,187	910	930	955	999	1,048	1,082	1,153	1,219	1,309
as a % of Sales	14	14	15	11	11	11	11	11	11	11	12	12
Oper Income	525	551	419	792	861	885	848	795	812	829	839	828
as a % of Sales	7	7	5	10	10	10	9	8	8	8	8	8
Non-operating Inc	5	-20	6	10	10	10	10	10	10	10	10	10
EBIT	530	531	425	802	871	895	858	805	822	839	849	838
as a % of Sales	7	7	5	10	10	10	9	9	9	8	8	8
Interest Exp	142	195	200	173	168	163	160	163	171	179	194	205
Special Items	11	7	-354	-260	-150	-50	0	0	0	0	0	0
Pretax Income	399	343	-129	368	553	682	698	642	651	661	655	633
Taxes	136	135	11	144	216	266	272	250	254	258	255	247
Minority Interest	0	0	0	0	0	0	0	0	0	0	0	0
Operating Net	263	208	-140	225	337	416	426	392	397	403	399	386
Special Charges/Gains	0	0	0	0	0	0	0	0	0	0	0	0
Reported Net Income	263	208	-140	225	337	416	426	392	397	403	399	386
Pfd Div	1	1	1	1	1	1	1	1	1	1	1	1
Net for Common	262	207	-141	224	336	415	425	391	396	402	398	385
Dividends	104	106	110	115	120	125	130	135	140	145	150	156
Retained Earnings	158	101	-251	109	216	290	295	256	256	257	248	229
Share Repurchase	0	0	0	0	0	50	60	60	70	70	70	70

BALANCE SHEET	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Current Assets	2,295	2,237	2,262	2,316	2,390	2,453	2,544	2,621	2,705	2,831	2,943	3,055
as a % of Sales	31	27	29	28	28	28	28	28	28	28	28	28
Net Fixed Assets	1,967	2,222	2,329	2,200	2,250	2,421	2,573	2,702	2,829	2,954	3,062	3,151
as a % of Sales	27	27	29	27	26	28	28	29	29	29	29	29
Other Assets	997	1,096	1,044	1,844	1,994	2,042	2,166	2,317	2,464	2,684	2,905	3,126
Total Assets	5,259	5,555	5,635	6,360	6,634	6,916	7,283	7,640	7,999	8,469	8,910	9,332
Current Liabs	1,794	1,947	1,982	1,985	2,048	2,102	2,180	2,246	2,318	2,426	2,522	2,618
St Debt	493	566	437	400	400	425	450	475	500	550	550	575
Long-Term Debt	1,063	1,042	1,213	1,200	1,150	1,100	1,100	1,150	1,200	1,300	1,400	1,500
Other incl Def Tax	653	659	755	1,381	1,425	1,463	1,517	1,563	1,613	1,688	1,755	1,822
Total Liabilities	3,510	3,648	3,950	4,566	4,624	4,665	4,798	4,960	5,132	5,415	5,678	5,940
Stockholder Equity	1,749	1,907	1,685	1,794	2,010	2,250	2,485	2,681	2,867	3,054	3,232	3,392
Preferred Stock	1	1	1	1	1	1	1	1	1	1	1	1
Equity for Common	1,748	1,906	1,684	1,793	2,009	2,249	2,484	2,680	2,866	3,053	3,231	3,391
Total Liabs&Equity	5,259	5,555	5,635	6,360	6,634	6,916	7,283	7,640	7,999	8,469	8,910	9,332
LT Debt/Capital	47	46	49	47	44	40	38	38	37	38	38	38

OTHER KEY VARIABLE	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Employment, '000	74	76	71	73	74	74	74	75	75	77	78	78
Capital Spending	452	587	537	525	550	565	575	580	600	620	625	625
Net Working Capital	501	290	280	331	341	350	363	374	386	404	420	436
EBITDA	879	912	817	1,209	1,256	1,289	1,282	1,255	1,295	1,334	1,366	1,374

KEY FIN RATIOS	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
ROE(NET/EQUITY)	0.15	0.11	-0.08	0.12	0.17	0.18	0.17	0.15	0.14	0.13	0.12	0.11
ROSales(EBIT/SLS)	0.07	0.07	0.05	0.10	0.10	0.10	0.09	0.09	0.09	0.08	0.08	0.08
ATO(SLS/ASSETS)	1.40	1.47	1.40	1.30	1.29	1.27	1.25	1.23	1.21	1.19	1.18	1.17
ROA(EBIT/ASSETS)	0.10	0.10	0.08	0.13	0.13	0.13	0.12	0.11	0.10	0.10	0.10	0.09
LEVERAGE (ASS/EQ)	3.01	2.91	3.35	3.55	3.30	3.07	2.93	2.85	2.79	2.77	2.76	2.75
PRETAX/EBIT	0.75	0.65	-0.30	0.46	0.63	0.76	0.81	0.80	0.79	0.79	0.77	0.76
NET/PRETAX	0.66	0.60	1.09	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61
PAYOUT RATIO	0.40	0.51	-0.78	0.51	0.36	0.30	0.31	0.35	0.35	0.36	0.38	0.40

LITTON INDUSTRIES INCORPORATION

Litton is a $2 billion technology-based electronics manufacturer, a $1 billion geophysical services company, a $1 billion industrial automation company, and a $1.2 billion shipbuilder. Sales to the U.S. government accounted for 47% of revenues in 1991. The electronics segment is a major supplier of electronic warfare, C^3, and night vision devices. Litton is a market leader in inertial guidance navigation systems. Naval backlog totaled $4 billion at the end of 1991. Debt was 52% of capital in early 1992. Bonds are rated A- , upgraded from BBB+ in early 1992.

LITTON INDUSTRIES INCORPORATED
Prime Contract Awards (thousands of current dollars)

	1987	1988	1989	1990	1991	5 YR TOTAL
Arms and Ordnance	$150	$31	($38)	$764	$0	$907
Fire Control Equipment	39,736	13,355	11,765	811	(32)	65,635
Missiles and Space Vehicles	88,109	7,896	5,728	27,975	19,412	149,120
Aircraft and Equipment	11,487	8,104	13,865	9,430	32,135	75,021
Ships and Equipment	169,305	16,958	3,896	(25,656)	(10,795)	153,708
Vehicles and Equipment	0	173	(94)	0	0	79
Engines and Components	889	107	26	340	214	1,576
Electronics and Communications	615,186	309,168	287,443	132,147	125,524	1,469,468
ADP	4,475	7,294	2,824	675	118	15,386
Other Equipment	235,801	86,231	78,431	116,689	126,152	643,304
RDT&E	279,467	244,571	253,985	284,211	209,827	1,272,061
Professional Services	67,746	35,104	15,914	46,535	34,668	199,967
Maintenance and Modifications	81,260	32,736	39,063	33,879	29,684	216,622
Miscellaneous Services	12,008	4,425	1,098	11,454	20,103	49,088
TOTAL	$1,605,619	$766,153	$713,906	$639,254	$587,010	$4,311,942

Strategy: Grow commercial business to reduce defense exposure. Revenue prospects for the defense electronics and naval ship businesses are negative. Cash flow and earnings are positive, so management is employing free cash flow to pay down high-cost debt, and to make selective acquisitions.

Acquisitions: Three defense electronics businesses were acquired from General Signal in 1991. Bond redemption in 1992 has halted acquisitions and share repurchase.

Revenue Prospects: Litton expects revenues from its marine and defense electronics businesses to shrink as U.S. and foreign defense procurement is curtailed. The naval backlog will support revenues through 1995, but a sharp decline looks likely thereafter, despite some foreign naval business. The electronics business serves commercial aerospace as well as defense, but chiefly as an OEM supplier of avionics and navigation. These sales will likely also dip as aircraft deliveries drop in 1993-94.

Revenues are increasing in the natural resource services and industrial automation segments. These civilian businesses are expected to play a more important role in the company's future.

Risks: Civil revenues may not grow sufficiently to offset defense revenue declines, implying stable or falling earnings. Also, a Litton computer services subsidiary has been found in violation of the False Claims Act, implying possible multi-million liabilities to the U.S. government. An upturn in the oil field services business is a potential upside prospect.

Financial Outlook: Litton has redeemed a substantial portion of older high cost debt this year, reducing its net cash position. Net interest costs will drop as a result. But share repurchase plans will be slowed.

Litton's financials are solid; and margins look sustainable. The key question for the company's earnings future is whether growing commercial business will expand rapidly enough to offset inevitable defense declines.

LITTON FINANCIAL SUMMARY

SEGMENT REVENUE	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Electronics	2,233	2,164	1,967	2,000	1,950	1,900	1,850	1,850	1,900	1,950	2,000	2,100
Resource Services	819	960	1,105	1,200	1,250	1,300	1,300	1,350	1,375	1,450	1,500	1,550
Industrial Automation	1,015	1,000	970	1,100	1,200	1,300	1,390	1,475	1,550	1,640	1,750	1,800
Marine Engineering	1,049	1,125	1,240	1,200	1,150	1,100	900	550	550	500	500	450
Eliminations	93	93	63	100	100	100	100	100	100	100	100	100
Net	5,023	5,156	5,219	5,400	5,450	5,500	5,340	5,125	5,275	5,440	5,650	5,800

EARNINGS MODEL	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Total Net Sales	5,023	5,156	5,219	5,400	5,450	5,500	5,340	5,125	5,275	5,440	5,650	5,800
Cost of goods sold	3,908	4,012	4,041	4,174	4,213	4,252	4,128	3,962	4,078	4,205	4,367	4,483
as a % of Sales	78	78	77	77	77	77	77	77	77	77	77	77
Deprec	205	215	220	222	226	231	235	240	244	248	252	256
SG&A Incl R&D	515	534	578	594	594	600	582	559	575	593	616	632
as a % of Sales	10	10	11	11	11	11	11	11	11	11	11	11
Oper Income	395	395	380	410	418	418	395	365	379	394	415	429
as a % of Sales	8	8	7	8	8	8	7	7	7	7	7	7
Non-operating Inc	107	116	94	60	50	50	55	60	60	60	60	60
EBIT	502	511	474	470	468	468	450	425	439	454	475	489
as a % of Sales	10	10	9	9	9	9	8	8	8	8	8	8
Interest Exp	188	191	170	125	89	90	95	101	104	99	99	99
Special Items	0	0	-120	0	0	0	0	0	0	0	0	0
Pretax Income	314	320	184	345	378	378	355	324	335	355	376	390
Taxes	127	128	101	135	148	148	139	126	131	138	147	152
Minority Interest	9	13	19	19	19	19	19	19	19	19	19	19
Operating Net	178	179	64	192	212	212	198	179	185	197	210	219
Special Charges/Gains	0	0	0	0	0	0	0	0	0	0	0	0
Reported Net Income	178	179	64	192	212	212	198	179	185	197	210	219
Pfd Div	1	1	1	1	1	1	1	1	1	1	1	1
Net for Common	177	178	63	191	211	211	197	178	185	197	209	218
Dividends	0	0	0	0	0	0	0	0	0	0	0	218
Retained Earnings	177	178	63	191	211	211	197	178	185	197	209	0
Share Repurchase	104	157	225	0	100	200	200	200	200	200	200	200

BALANCE SHEET	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Current Assets	3,210	3,208	2,912	3,024	3,052	3,025	2,884	2,768	2,796	2,883	2,938	3,016
as a % of Sales	64	62	56	56	56	55	54	54	53	53	52	52
Net Fixed Assets	1,269	1,247	1,311	1,334	1,364	1,393	1,418	1,443	1,469	1,491	1,514	1,533
as a % of Sales	25	24	25	25	25	25	27	28	28	27	27	26
Other Assets	779	741	775	428	515	598	706	703	654	619	650	541
Total Assets	5,258	5,196	4,998	4,787	4,931	5,016	5,007	4,914	4,919	4,994	5,102	5,091
Current Liabs	1,774	1,613	1,680	1,647	1,662	1,678	1,629	1,563	1,609	1,659	1,723	1,769
St Debt	149	96	100	100	100	100	100	100	100	100	100	100
Long-Term Debt	1,454	1,452	1,289	890	900	950	1,020	1,050	1,000	1,000	1,000	900
Other incl Def Tax	762	831	872	902	910	919	892	856	881	908	944	969
Total Liabilities	3,990	3,896	3,841	3,439	3,472	3,546	3,540	3,469	3,490	3,568	3,667	3,638
Stockholder Equity	1,268	1,300	1,157	1,348	1,459	1,470	1,467	1,445	1,429	1,426	1,435	1,453
Preferred Stock	2	2	2	2	2	2	2	2	2	2	2	2
Equity for Common	1,266	1,298	1,155	1,346	1,457	1,468	1,465	1,443	1,427	1,424	1,433	1,451
Total Liabs&Equity	5,258	5,196	4,998	4,787	4,931	5,016	5,007	4,914	4,919	4,994	5,102	5,091
LT Debt/Capital	56	54	55	42	41	42	43	44	43	44	43	41

OTHER KEY VARIABLE	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Employment, '000	51	51	52	54	53	52	49	46	45	45	46	45
Capital Spending	249	191	255	245	255	260	260	265	270	270	275	275
Net Working Capital	1,436	1,595	1,232	1,377	1,390	1,348	1,255	1,204	1,187	1,224	1,215	1,247
EBITDA	707	726	694	692	693	699	685	665	682	702	727	744

KEY FIN RATIOS	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
ROE(NET/EQUITY)	0.14	0.14	0.05	0.14	0.14	0.14	0.13	0.12	0.13	0.14	0.15	0.15
ROSales(EBIT/SLS)	0.10	0.10	0.09	0.09	0.09	0.09	0.08	0.08	0.08	0.08	0.08	0.08
ATO(SLS/ASSETS)	0.96	0.99	1.04	1.13	1.11	1.10	1.07	1.04	1.07	1.09	1.11	1.14
ROA(EBIT/ASSETS)	0.10	0.10	0.09	0.10	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.10
LEVERAGE (ASS/EQ)	4.15	4.00	4.33	3.56	3.38	3.42	3.42	3.41	3.45	3.51	3.56	3.51
PRETAX/EBIT	0.63	0.63	0.39	0.73	0.81	0.81	0.79	0.76	0.76	0.78	0.79	0.80
NET/PRETAX	0.56	0.56	0.34	0.55	0.56	0.56	0.55	0.55	0.55	0.55	0.56	0.56
PAYOUT RATIO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

UNISYS CORPORATION

Unisys is an $8.5 billion computer hardware and systems company. Over one half of company sales are made abroad. Unisys has been financially troubled since its origins as a merger of Burroughs and Sperry in 1986. In recent years shareholder equity has dropped alarmingly from a long run of losses. Over the past two years the company has moved more aggressively to cut costs, and has returned to profitability this year. The company's debt is "B" rated, or below investment grade. Unisys does some 27% of its business with the U.S. government. Its Paramax division is a major supplier of information systems and hardware to the Department of Defense. Other major Paramax applications are in weather forecasting, space systems and air traffic control.

UNISYS CORPORATION
Prime Contract Awards (thousands of current dollars)

	1987	1988	1989	1990	1991	5 YR TOTAL
Arms and Ordnance	$33	$1,030	$336	$1,154	$0	$2,553
Fire Control Equipment	116,604	106,228	62,296	321,019	58,979	665;126
Missiles and Space Vehicles	14,360	1,997	446	1,544	20,313	38,660
Aircraft and Equipment	(1,403)	1,045	195	0	156	(7)
Ships and Equipment	3,822	223	1,904	664	179	6,792
Vehicles and Equipment	0	0	0	0	0	0
Engines and Components	321	0	86	144	518	1,069
Electronics and Communications	412,441	298,536	180,433	237,199	193,741	1,322,350
ADP	552,275	377,611	277,598	445,436	302,130	1,955,050
Other Equipment	125,282	34,496	33,346	28,205	25,005	246,334
RDT&E	255,982	217,866	336,784	57,591	763,869	1,632,092
Professional Services	638,465	178,677	151,873	251,622	206,917	1,427,554
Maintenance and Modifications	142,564	153,245	151,061	128,086	146,807	721,763
Miscellaneous Services	144,534	73,265	61,840	32,426	9,317	321,382
TOTAL	$2,405,280	$1,444,219	$1,258,198	$1,505,090	$1,727,931	$8,340,718

Strategy: Cut costs aggressively on a flat or shrinking business base. Use excess cash to pay down debt. Pursue foreign sales aggressively. Accelerate R&D once debt costs stabilize.

Divestiture: Paramax was floated in late 1991 but the flotation was withdrawn, due to poor valuation of the offering.

Restructuring: Unisys took a $1.2 billion charge against earnings in 1991 to cover the costs of a major downsizing. Employment has dropped by approximately one third since 1989. Sales have dropped from about

$10 billion to $8.5 billion, or 15%, in the same period. Capital spending has dropped sharply. Unisys will show positive net income and cash flow in 1992, and will be able to pay down several million dollars in debt.

Annual interest costs have dropped by about 30%, from over $400 million per year in 1989-90 to under $300 million currently. To date the restructuring looks successful: cash flow is substantial, and bank debt is being progressively replaced with medium term notes, with 8.6%-10.5% coupons.

Revenue Prospects: The risk for Unisys is whether in downsizing the company and boosting near-term cash flow Unisys management has maintained an adequate skills and capital base for future revenue growth. DRI assumes that management has been selective, and has preserved those development programs with greatest future promise. But we expects that Unisys will not be able to show significant revenue growth until mid-decade at the earliest. Paramax end-market sales will continue to drop. This may be made up in overseas sales, where Unisys has a strong marketing presence and a proven track record. DRI revenue forecasts assume:

1. foreign sales will continue to grow;

2. R&D and capital spending must be accelerated in the late 1990s to sustain an adequate technology level to maintain market share; and

3. mainframe and large systems continue to gradually lose market share to smaller networked systems, to the detriment of Unisys revenue prospects.

Financial Outlook: The anticipated forecast outcome is for Unisys to successfully reduce debt to less dangerous levels over the next two years. But DRI expects that the computer business will not grow any less competitive. Current margins are unlikely to be maintained for the remainder of the decade. DRI has assumed a pickup in R&D and capital spending in the late 1990s as more corporation resources are expended to maintain technology dominance in key product lines.

UNISYS FINANCIAL SUMMARY

SEGMENT REVENUE	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Sales	6,966	6,819	5,689	5,600	5,500	5,300	5,200	5,300	5,400	5,500	5,500	5,500
Service and Rentals	3,131	3,292	3,007	2,900	2,900	3,000	3,100	3,100	3,200	3,250	3,250	3,250

EARNINGS MODEL	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Total Sales	10,045	10,056	8,687	8,500	8,400	8,300	8,300	8,400	8,600	8,750	8,750	8,750
Cost of goods sold	6,223	6,010	4,951	4,845	4,788	4,731	4,731	4,788	4,902	4,988	4,988	4,988
as a % of Sales	62	60	57	57	57	57	57	57	57	57	57	57
Deprec	593	591	711	283	279	281	297	312	328	306	323	337
SG&A Incl R&D	3,260	3,286	2,788	2,720	2,688	2,656	2,739	2,772	2,924	2,975	2,975	2,975
as a % of Sales	32	33	32	32	32	32	33	33	34	34	34	34
Oper Income	-31	169	237	652	645	632	533	528	446	481	464	450
as a % of Sales	0	2	3	8	8	8	6	6	5	5	5	5
Non-operating Inc	133	120	82	9	0	0	0	0	0	0	0	0
EBIT	102	289	319	661	645	632	533	528	446	481	464	450
as a % of Sales	1	3	4	8	8	8	6	6	5	5	5	5
Interest Exp	426	446	407	312	265	255	242	233	233	233	223	224
Special Items	-230	-180	-1,200	0	0	0	0	0	0	0	0	0
Pretax Income	-554	-337	-1,288	348	380	377	291	295	213	248	241	226
Taxes	85	99	105	129	141	140	108	109	79	92	89	84
Minority Interest	0	0	0	0	0	0	0	0	0	0	0	0
Operating Net	-639	-437	-1,393	220	240	238	183	186	134	157	152	143
Special Charges/Gains	0	0	0	0	0	0	0	0	0	0	0	0
Reported Net Income	-639	-437	-1,393	220	240	238	183	186	134	157	152	143
Pfd Div	107	114	121	121	121	121	121	121	121	121	121	121
Net for Common	-746	-551	-1,514	99	119	117	62	65	13	36	31	22
Dividends	264	230	27	24	25	35	40	45	45	50	50	50
Retained Earnings	-1,010	-781	-1,541	75	94	82	22	20	-32	-14	-19	-28
Share Repurchase	0	-384	-70	0	0	0	0	0	0	0	0	0

BALANCE SHEET	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Current Assets	5,083	4,870	4,296	4,165	4,200	4,150	4,150	4,200	4,300	4,375	4,375	4,375
as a % of Sales	51	48	49	49	50	50	50	50	50	50	50	50
Net Fixed Assets	2,075	1,928	1,417	1,394	1,405	1,484	1,562	1,640	1,702	1,795	1,872	1,955
as a % of Sales	21	19	16	16	17	18	19	20	20	21	21	22
Other Assets	3,593	3,491	2,719	981	886	796	640	575	467	248	152	40
Total Assets	10,751	10,289	8,432	6,540	6,491	6,430	6,352	6,415	6,468	6,418	6,399	6,370
Current Liabs	3,537	4,209	3,663	3,570	3,528	3,486	3,486	3,528	3,612	3,675	3,675	3,675
St Debt	716	1,235	591	390	380	350	350	350	350	350	360	370
Long-Term Debt	3,248	2,495	2,695	2,400	2,300	2,200	2,100	2,100	2,100	2,000	2,000	2,000
Other incl Def Tax	84	99	60	60	59	58	58	59	60	61	61	61
Total Liabilities	6,869	6,803	6,418	6,030	5,887	5,744	5,644	5,687	5,772	5,736	5,736	5,736
Stockholder Equity	3,882	3,485	2,014	2,089	2,182	2,264	2,286	2,306	2,274	2,260	2,241	2,212
Preferred Equity	1,429	1,578	1,578	1,578	1,578	1,578	1,578	1,578	1,578	1,578	1,578	1,578
Equity for Common	2,453	1,907	436	511	604	686	708	728	696	682	663	634
Total Liabs&Equity	10,751	10,288	8,432	6,540	6,491	6,430	6,352	6,415	6,468	6,418	6,399	6,370
Debt/Capital	51	52	62	57	55	53	52	52	52	51	51	52

OTHER KEY VARIABL	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Employment, '000	82	75	60	56	54	53	52	50	49	48	47	46
Capital Spending	615	460	248	260	290	360	375	390	390	400	400	420
Net Working Capital	1,546	661	633	595	672	664	664	672	688	700	700	700
EBITDA	695	880	1,030	944	924	913	830	840	774	787	787	787
Implied free Cash Flow	492	859	403	410	292	306	213	209	135	143	164	143

KEY FIN RATIOS	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
ROE(NET/EQUITY)	-0.30	-0.29	-3.47	0.19	0.20	0.17	0.09	0.09	0.02	0.05	0.05	0.03
ROSales(EBIT/SLS)	0.01	0.03	0.04	0.08	0.08	0.08	0.06	0.06	0.05	0.05	0.05	0.05
ATO(SLS/ASSETS)	0.93	0.98	1.03	1.30	1.29	1.29	1.31	1.31	1.33	1.36	1.37	1.37
ROA(EBIT/ASSETS)	0.01	0.03	0.04	0.10	0.10	0.10	0.08	0.08	0.07	0.07	0.07	0.07
LEVERAGE (ASS/EQ)	4.38	5.40	19.34	12.81	10.75	9.38	8.97	8.81	9.29	9.41	9.66	10.04
PRETAX/EBIT	-5.43	-1.17	-4.04	0.53	0.59	0.60	0.55	0.56	0.48	0.52	0.52	0.50
NET/PRETAX	1.35	1.63	1.18	0.28	0.31	0.31	0.21	0.22	0.06	0.14	0.13	0.10
PAYOUT RATIO	-0.35	-0.42	-0.02	0.24	0.21	0.30	0.64	0.70	3.36	1.41	1.62	2.32

ALLIED-SIGNAL INCORPORATED

Allied Signal is an diversified $12 billion company composed of a $5 billion aerospace segment (controls, auxiliary power supplies, wheels, brakes), a $4 billion auto parts segment (OEM), and a $3 billion engineered materials segment (chemicals, plastics, polymers, carpet fibers). The aerospace unit produces components for numerous defense and commercial aircraft. Commercial aircraft components are the dominant market segment. Significant DoD programs include the F-15 Instrument Landing System, the Corsair Avionics System Tester, and torpedo propulsion. Allied Signal bonds are A- minus rated. The Debt/Capital ratio stood at 35% in early 1992.

ALLIED-SIGNAL INCORPORATED
Prime Contract Awards (thousands of current dollars)

	1987	1988	1989	1990	1991	5 YR TOTAL
Arms and Ordnance	$76,078	$53,527	$97,017	$84,766	$111,386	$422,774
Fire Control Equipment	647	932	77	2,091	3,104	6,851
Missiles and Space Vehicles	18,645	45,123	17,864	40,657	43,902	166,191
Aircraft and Equipment	103,937	76,844	150,868	81,854	49,344	462,847
Ships and Equipment	0	0	0	0	0	0
Vehicles and Equipment	798	9,968	977	565	1,603	13,911
Engines and Components	220,563	203,445	180,388	163,864	145,653	913,913
Electronics and Communications	156,107	95,636	131,239	84,048	79,148	546,178
ADP	4,775	3,701	2,039	648	970	12,133
Other Equipment	145,443	88,043	140,091	120,240	113,092	606,909
RDT&E	218,020	110,355	170,235	147,457	136,455	782,522
Professional Services	579,716	757,520	725,116	717,704	652,732	3,432,788
Maintenance and Modifications	93,698	69,736	42,217	59,779	51,657	317,087
Miscellaneous Services	3,948	5,025	3,579	2,460	2,920	17,932
TOTAL	$1,622,375	$1,519,855	$1,661,707	$1,506,133	$1,391,966	$7,702,036

Strategy: Cut costs by internal restructuring and quality management. Grow revenues via joint ventures where necessary to penetrate new markets (anti-lock brakes). Divest Union Texas gas and use cash to fund selective niche acquisitions that augment key business lines. Cost-cutting will dominate until economically sensitive end-markets improve.

Revenue Prospects: Revenue growth will be sluggish in 1992 and 1993, but should increase steadily over the remainder of the decade. The decline in military aircraft procurement is probably less of a problem than the world airline recession. After-market sales of brakes, etc. dropped as inventories were run down at airlines and total air traffic slumped. But air traffic is recovering, and depleted airline parts inventories imply higher shipments in late 1992 and 1993. Recent automotive revenue gains are threatened by falling auto sales in Europe. Market share in passenger ABS and airbags is still low.

Allied Signal has improved operating margins via internal cost cuts this year, and seen a significant recovery in its auto segment. Operating cash flow likely exceeded $200 million. Sale of equity in Union Texas will bring $955 million, which will be used to reduce debt and build cash for selective acquisitions.

The company's aerospace sales are concentrated in wheels, brakes, auxiliary power systems and controls. OEM markets will remain soft in 1993-95 as commercial aircraft delivers ebb. But the business should turn up later in the decade. Business jet components should turn up in 1993-94, since corporate profits drive business jet sales.

Financial Outlook: Allied Signal is able to generate substantial free cash despite a heavy capital spending profile. This year's cash windfall from sales of the Texas gas business will be used to trim debt and to fund selective niche acquisitions. Allied Signal is committed to increasing company-wide margins, so acquisitions will have to be earnings-additive. This will limit opportunities.

Risks: Business risks for Allied Signal are focused on whether earnings increases can be sustained. Internal cost cuts yield a one-time improvement in margins. Thereafter, Allied Signal's ability to grow earnings will depend on success in defending auto market share, on success in increasing its share of the lucrative airbag and ABS markets, and on a recovery in commercial aircraft after-market orders. We see Allied's emphasis on capital spending and R&D as a long-term strength that should be reflected in market share gains late in the decade.

ALLIED-SIGNAL FINANCIAL SUMMARY

SEGMENT REVENUE	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Aerospace	5,079	5,358	5,269	5,200	5,200	5,400	5,600	5,800	6,000	6,200	6,500	6,800
Automotive	3,849	4,181	4,095	4,000	4,400	4,700	4,900	5,100	5,300	5,500	5,800	6,100
Engineered Materials	2,993	2,786	2,459	2,500	2,750	2,900	3,100	3,300	3,500	3,800	4,200	4,500
Other	21	18	8	0	0	0	0	0	0	0	0	0
Eliminations	0	0	0	0	0	0	0	0	0	0	0	0
Net	11,942	12,343	11,831	11,700	12,350	13,000	13,600	14,200	14,800	15,500	16,500	17,400

EARNINGS MODEL	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Total Net Sales	11,942	12,343	11,831	11,700	12,350	13,000	13,600	14,200	14,800	15,500	16,500	17,400
Cost of goods sold	9,278	9,800	9,442	9,185	9,633	10,140	10,608	11,076	11,544	12,090	12,870	13,572
as a % of Sales	78	79	80	79	78	78	78	78	78	78	78	78
Deprec	385	426	470	484	509	529	549	573	598	624	647	670
SG&A Incl R&D	1,333	1,387	1,363	1,346	1,408	1,482	1,550	1,619	1,687	1,767	1,881	1,984
as a % of Sales	11	11	12	12	11	11	11	11	11	11	11	11
Oper Income	946	730	556	686	800	849	892	932	971	1,019	1,102	1,174
as a % of Sales	8	6	5	6	6	7	7	7	7	7	7	7
Non-operating Inc	141	172	184	150	130	120	120	120	120	120	125	125
EBIT	1,087	902	740	836	930	969	1,012	1,052	1,091	1,139	1,227	1,299
as a % of Sales	9	7	6	7	8	7	7	7	7	7	7	7
Interest Exp	341	300	283	252	207	221	225	234	243	243	252	252
Special Items	23	0	-847	0	0	0	0	0	0	0	0	0
Pretax Income	769	602	-390	585	723	748	787	818	848	896	975	1,047
Taxes	241	140	-117	228	282	292	307	319	331	350	380	408
Minority Interest	69	17	-196	0	0	0	0	0	0	0	0	0
Operating Net	459	445	-77	357	441	456	480	499	517	547	595	639
Special Charges/Gains	0	0	0	955	0	0	0	0	0	0	0	0
Reported Net Income	459	445	-77	1,312	441	456	480	499	517	547	595	639
Pfd Div	0	0	0	0	0	0	0	0	0	0	0	0
Net for Common	459	445	-77	1,312	441	456	480	499	517	547	595	639
Dividends	268	248	218	225	235	245	255	265	275	285	295	310
Retained Earnings	191	197	-295	1,087	206	211	225	234	242	262	300	329
Share Repurchase	208	461	0	0	150	150	150	150	150	150	150	150

BALANCE SHEET	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Current Assets	4,141	4,316	4,129	4,095	4,323	4,550	4,760	4,970	5,180	5,425	5,775	6,090
as a % of Sales	35	35	35	35	35	35	35	35	35	35	35	35
Net Fixed Assets	3,321	3,584	3,638	3,824	3,981	4,131	4,312	4,498	4,690	4,866	5,039	5,189
as a % of Sales	28	29	31	33	32	32	32	32	32	31	31	30
Other Assets	2,670	2,556	2,615	3,144	3,266	3,299	3,360	3,424	3,391	3,504	3,592	3,821
Total Assets	10,132	10,456	10,382	11,063	11,569	11,980	12,432	12,892	13,261	13,795	14,406	15,100
Current Liabs	3,227	3,404	3,603	3,569	3,767	3,965	4,148	4,331	4,514	4,728	5,033	5,307
St Debt	479	697	881	700	700	700	700	700	700	700	700	700
Long-Term Debt	1,903	2,051	1,914	1,600	1,750	1,800	1,900	2,000	2,000	2,100	2,100	2,200
Other incl Def Tax	1,590	1,621	1,882	1,825	1,927	2,028	2,122	2,215	2,309	2,418	2,574	2,714
Total Liabilities	6,720	7,076	7,399	6,994	7,443	7,793	8,170	8,546	8,823	9,246	9,707	10,221
Stockholder Equity	3,412	3,380	2,983	4,070	4,126	4,187	4,262	4,346	4,438	4,550	4,700	4,878
Preferred Stock	0	0	0	0	0	0	0	0	0	0	0	0
Equity for Common	3,412	3,380	2,983	4,070	4,126	4,187	4,262	4,346	4,438	4,550	4,700	4,878
Total Liabs&Equity	10,132	10,456	10,382	11,063	11,569	11,980	12,432	12,892	13,261	13,795	14,406	15,100
LT Debt/Capital	41	45	48	36	37	37	38	38	38	38	37	37

OTHER KEY VARIABLE	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Employment, '000	107	106	98	94	95	96	97	97	98	100	104	106
Capital Spending	541	675	668	670	665	680	730	760	790	800	820	820
Net Working Capital	914	912	526	527	556	585	612	639	666	698	743	783
EBITDA	1,472	1,328	1,210	1,320	1,439	1,498	1,562	1,625	1,689	1,763	1,874	1,969

KEY FIN RATIOS	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
ROE(NET/EQUITY)	0.13	0.13	-0.03	0.32	0.11	0.11	0.11	0.11	0.12	0.12	0.13	0.13
ROSales(EBIT/SLS)	0.09	0.07	0.06	0.07	0.08	0.07	0.07	0.07	0.07	0.07	0.07	0.07
ATO(SLS/ASSETS)	1.18	1.18	1.14	1.06	1.07	1.09	1.09	1.10	1.12	1.12	1.15	1.15
ROA(EBIT/ASSETS)	0.11	0.09	0.07	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.09	0.09
LEVERAGE (ASS/EQ)	2.97	3.09	3.48	2.72	2.80	2.86	2.92	2.97	2.99	3.03	3.07	3.10
PRETAX/EBIT	0.71	0.67	-0.53	0.70	0.78	0.77	0.78	0.78	0.78	0.79	0.79	0.81
NET/PRETAX	0.60	0.74	0.20	2.24	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61
PAYOUT RATIO	0.58	0.56	-2.83	0.17	0.53	0.54	0.53	0.53	0.53	0.52	0.50	0.49

1992 Special Gain from Sales of Texas Union

LORAL CORPORATION

Loral is a high-technology company involved in the design and production of defense electronics. Loral's products include radar warning receivers, integrated electronic warfare systems, and military computers. The company is rated BBB+, with a 39% Debt/Capital ratio.

LORAL CORPORATION	
Major Contracts	**Major Subcontracts**
Hummer Military Vehicle	F-15 (radar)
Army Tactical Missile System	F-16 (electronic warfare
ERINT-1 (Extended Range Technology Interceptor)	F-18 (electronic warfare)
HVM (Hypervelocity Missile)	RAH-66 (radar)
MLRS (Multiple Launch Missile System)	C-130 (radar)

LORAL CORPORATION
Prime Contract Awards (thousands of current dollars)

	1987	*1988*	*1989*	*1990*	*1991*	*5 YR TOTAL*
Arms and Ordnance	$30,644	$35,489	$11,658	$17,566	$36,872	$132,229
Fire Control Equipment	62,142	28,080	3,241	32,182	6,842	132,487
Missiles and Space Vehicles	35,756	28,931	10,955	1,811	559	78,012
Aircraft and Equipment	61,252	43,515	45,865	22,493	206	173,331
Ships and Equipment	3,293	0	0	0	0	3,293
Vehicles and Equipment	40,771	5,972	600	(59)	0	47,284
Engines and Components	210	95	125	28	0	458
Electronics and Communications	275,671	212,504	145,171	198,201	215,766	1,047,313
ADP	15,512	4,528	3,676	3,282	4,787	31,785
Other Equipment	132,696	40,756	71,311	166,915	115,417	527,095
RDT&E	54,989	55,595	74,552	39,014	150,366	374,516
Professional Services	5,064	8,402	5,397	4,322	26,836	50,021
Maintenance and Modifications	37,129	25,433	26,287	41,771	18,637	149,257
Miscellaneous Services	206	2,215	947	649	23,710	27,727
TOTAL	$755,335	$491,515	$399,785	$528,175	$599,998	$2,774,808

Strategy: Strategic acquisitions to reinforce core defense businesses and sustain EPS growth.

Acquisitions:

- LTV Missiles Division (1992)
- Ford Aerospace (1990-1992)
- Honeywell Electro-Optics (1989)
- Goodyear Aerospace (1987)

Revenue Prospects: Management has a demonstrated record of improving margins in acquired businesses. The company focus is on electronic upgrades to existing defense systems, which may have a more favorable outlook than new platforms. The company holds a strong position in C^3, and its #1 position in simulation/training is likely to be strengthened further. Loral has a viable commercial satellite business (NTT launches in 1995), and it manufactures tactical missiles enhanced by LTV, especially ATACMS and MLRS. Electronic combat and radar warning systems are also core businesses and non-defense applications are being aggressively pursued, along with foreign sales.

Financial Outlook: Downsizing has been selective and fine-tuned, as are R&D and capital spending cuts. Noncore businesses have been sold. Free cash flow should exceed $100 million in 1993.

Operating margin is currently 10% of revenues, and has the potential to rise as savings are achieved in the LTV business. The debt/capital ratio is not a barrier to future acquisitions. Interest expense has fallen to only 2% of revenues, and is expected to drop further next year.

LORAL FINANCIAL SUMMARY

SEGMENT REVENUE	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Electronics	1187	1274	2126.8	2132	2200	2200	2000	2000	2050	2100	2200	2200
Missiles (LTV)				750	750	740	720	700	700	720	750	850

EARNINGS MODEL	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Total Sales	1187	1274	2126	2882	2950	2940	2720	2700	2750	2820	2950	3050
Cost of goods sold	762	814	1498	2124	2124	2087	1904	1890	1925	1974	2065	2135
as a % of Sales	64.2	63.9	70.5	73.7	72	71	70	70	70	70	70	70
Deprec	55	65	88	108	138	129	122	116	111	95	93	91
SG&A Incl R&D	237	246	325	357	384	382	354	351	358	367	384	397
as a % of Sales	20.0	19.3	15.3	12.4	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0
Oper Income	133	149	215	293	305	342	341	343	356	384	408	427
as a % of Sales	11.2	11.7	10.1	10.2	10.3	11.6	12.5	12.7	13.0	13.6	13.8	14.0
Non-operating Inc	2	15	7	9	0	0	0	0	0	0	0	0
EBIT	135	164	222	302	305	342	341	343	356	384	408	427
as a % of Sales	11.4	12.9	10.4	10.5	10.3	11.6	12.5	12.7	13.0	13.6	13.8	14.0
Interest Exp	39	40	59	57	55	54	57	63	66	67	69	72
Special Items	0	0	0	0	0	0	0	0	0	0	0	0
Pretax Income	96	124	163	245	250	287	284	280	291	317	339	355
Taxes	35	46	61	89	92	106	105	104	108	117	125	131
Minority Interest	0	0	12	29	6	1	0	0	0	0	0	0
Operating Net	61	78	90	127	151	180	179	176	183	199	214	224
Special Charges/Gains	27	0	0	0	0	0	0	0	0	0	0	0
Reported Net Income	88	78	90	127	151	180	179	176	183	199	214	224
Pfd Div	0	0	0	0	0	0	0	0	0	0	0	0
Net for Common	88	78	90	127	151	180	179	176	183	199	214	224
Dividends	20	22	28	24	25	35	45	50	55	60	65	70
Retained Earnings	68	56	62	103	126	145	134	126	128	139	149	154
Share Repurchase	0	0	0	0	20	40	40	50	50	50	50	50

BALANCE SHEET	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Current Assets	898	749	1177	1204	1475	1470	1360	1350	1375	1410	1475	1525
as a % of Sales	76	59	55	42	50	50	50	50	50	50	50	50
Net Fixed Assets	325	458	659	690	644	609	582	556	530	517	507	501
as a % of Sales	27	36	31	24	22	21	21	21	19	18	17	16
Other Assets	238	328	696	765	685	851	1061	1196	1315	1429	1553	1682
Total Assets	1461	1535	2532	2659	2804	2930	3003	3102	3219	3356	3535	3708
Current Liabs	435	436	720	608	649	647	598	594	605	620	649	671
St Debt	140	18	37	15	20	20	20	20	20	20	20	20
Long-Term Debt	423	419	783	562	550	575	640	670	690	710	740	770
Other incl Def Tax	86	96	357	491	502	500	462	459	468	479	502	519
Total Liabilities	944	951	1860	1661	1701	1722	1701	1723	1763	1810	1891	1960
Stockholder Equity	518	584	672	997	1103	1208	1302	1379	1457	1546	1645	1749
Equity for Common	518	584	672	997	1103	1208	1302	1379	1457	1546	1645	1749
Total Liabs&Equity	1462	1535	2532	2658	2804	2930	3003	3102	3219	3356	3535	3708
LT Debt/Capital	45	42	54	36	33	32	33	33	32	31	31	31

OTHER KEY VARIABLE	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Employment, '000	9.7	12.7	23.8	22.0	21.9	21.2	20.8	20.3	19.9	19.5	19.2	18.7
Capital Spending	41	61	93	81	92	94	95	90	85	83	83	85
Net Working Capital	463	313	457	596	826	823	762	756	770	790	826	854
EBITDA	190	229	310	410	443	470	462	459	468	479	502	519
Implied free Cash Flow	95	278	14	133	66	325	372	312	303	309	313	333

KEY FIN RATIOS	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
ROE(NET/EQUITY)	0.170	0.134	0.134	0.127	0.137	0.149	0.137	0.128	0.126	0.129	0.130	0.128
ROSales(EBIT/SLS)	0.114	0.129	0.104	0.105	0.103	0.116	0.125	0.127	0.130	0.136	0.138	0.140
ATO(SLS/ASSETS)	0.812	0.830	0.840	1.084	1.052	1.003	0.906	0.871	0.854	0.840	0.834	0.823
ROA(EBIT/ASSETS)	0.092	0.107	0.088	0.114	0.109	0.117	0.113	0.110	0.111	0.114	0.116	0.115
LEVERAGE (ASS/EQ)	2.820	2.628	3.768	2.667	2.541	2.425	2.306	2.250	2.210	2.170	2.149	2.121
PRETAX/EBIT	0.711	0.756	0.734	0.811	0.820	0.841	0.834	0.817	0.816	0.824	0.830	0.831
NET/PRETAX	0.917	0.629	0.552	0.518	0.606	0.627	0.630	0.630	0.630	0.630	0.630	0.630
PAYOUT RATIO	0.2273	0.28	0.31	0.19	0.17	0.19	0.25	0.28	0.30	0.30	0.30	0.31

TEXAS INSTRUMENTS INCORPORATED

Texas Instruments (TI) is a technology-based semiconductor and electronics company. Semiconductor components comprise approximately one half of company revenues. Defense electronics accounts for 27% of revenues. TI's debt is A-rated. Debt is 32% of capital.

TEXAS INSTRUMENTS INCORPORATED
Prime Contract Awards (thousands of current dollars)

	1987	1988	1989	1990	1991	5 YR TOTAL
Arms and Ordnance	$75,095	($1,004)	$8,130	$9,371	$61,039	$152,631
Fire Control Equipment	13,229	43,546	68,061	49,224	55,124	229,184
Missiles and Space Vehicles	645,602	563,561	548,665	402,457	906,727	3,067,012
Aircraft and Equipment	2,757	10,488	11,925	19,981	19,519	64,670
Ships and Equipment	0	0	0	0	0	0
Vehicles and Equipment	0	0	0	0	0	0
Engines and Components	47	236	61	41	0	385
Electronics and Communications	196,912	426,571	143,644	60,482	109,490	937,099
ADP	321	1,265	1,115	1,091	118	3,910
Other Equipment	31,967	14,695	19,451	6,520	21,462	94,095
RDT&E	104,219	100,958	190,115	119,141	81,654	596,087
Professional Services	11,396	14,692	22,600	13,596	8,423	70,707
Maintenance and Modifications	40,333	49,577	15,728	31,564	8,483	145,685
Miscellaneous Services	259	240	2,103	0	75	2,677
TOTAL	$1,122,137	$1,224,825	$1,031,598	$713,468	$1,272,114	$5,364,142

Strategy: Restructure the core semiconductor business to regain profitability. Invest in higher margin products. Close or sell unprofitable units. Manage defense business to maintain current margins on a shrinking base. Selectively pursue civilian applications. Grow digital services.

Restructuring: Texas Instruments undertook a major restructuring of its semiconductor and memory chip business in 1991. As one of the top two U.S. suppliers of chips to the computer industry, Texas Instruments has suffered from intense foreign competition in DRAM chips for several years. The company has moved aggressively to reduce costs, investing aggressively in new facilities -- often as part of joint ventures -- in Singapore, Taiwan, and Italy.

Revenue Prospects: Texas Instruments' defense business is stable, with the highest operating margin within the firm. Orders were recently bolstered by reordering for HARM and other smart weapons expended during the Gulf War. Despite recent contract wins contracts such as the F-22 solid state radar, the defense segment is set to shrink.

Financial Outlook: Gradual contraction of the defense electronics segment poses a margin and earnings problem for Texas Instruments. Defense earnings will at best plateau, and may easily shrink. Without defense earnings to bolster the firm, the company simply cannot afford to run its semiconductor business as unprofitably as has been the case recently. Fortunately, one source of sustained revenue support is royalty income. As an innovator in the semiconductor business, Texas Instruments holds numerous critical patents. Royalties should exceed $300 million annually in 1992 and 1993.

Risks: A turnaround has been accomplished in the semiconductor business this year. DRI has assumed that higher operating margins can be sustained in this business in our projections. Our assumption is bolstered by the recent anti-dumping tariffs imposed on South Korean chip manufacturers. But the chip business is expected to remain intensely competitive, and sustainable margins are by no means assured.

TEXAS INSTRUMENTS FINANCIAL SUMMARY

SEGMENT REVENUE	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Components	3,269	3,159	3,470	3,800	4,100	4,300	4,450	4,550	4,650	4,800	4,900	5,000
Defense electronics	2,159	2,124	1,950	2,000	2,000	1,900	1,900	1,800	1,800	1,850	1,850	1,900
Digital Products	1,024	1,243	1,328	1,500	1,650	1,800	1,900	2,000	2,150	2,250	2,350	2,450
Metallurgical Materials	191	159	143	150	150	150	155	160	160	160	160	160
Eliminations	121	118	107	100	100	100	103	112	119	122	126	128
Net	6,522	6,567	6,784	7,350	7,800	8,050	8,302	8,398	8,642	8,938	9,134	9,382

EARNINGS MODEL	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Total Net Sales	6,522	6,567	6,784	7,350	7,800	8,050	8,302	8,398	8,642	8,938	9,134	9,382
Cost of goods sold	4,704	4,869	5,166	5,513	5,850	5,997	6,185	6,257	6,438	6,703	6,850	7,037
as a % of Sales	72	74	76	75	75	75	75	75	75	75	75	75
Deprec	453	541	590	541	555	583	610	630	651	671	692	717
SG&A Incl R&D	1,045	1,183	1,277	1,264	1,326	1,368	1,411	1,428	1,469	1,519	1,553	1,595
as a % of Sales	16	18	19	17	17	17	17	17	17	17	17	17
Oper Income	320	-28	-249	32	69	102	96	84	84	44	39	34
as a % of Sales	5	0	-4	0	1	1	1	1	1	0	0	0
Non-operating Inc	84	45	4	320	350	300	300	300	300	300	300	300
EBIT	404	19	-245	352	419	402	396	384	384	344	339	334
as a % of Sales	6	0	-4	5	5	5	5	5	4	4	4	4
Interest Exp	38	47	59	83	85	86	87	89	90	90	95	95
Special Items	-11	7	0	0	0	0	0	0	0	0	0	0
Pretax Income	355	-21	-304	269	335	316	309	294	294	254	244	239
Taxes	63	18	105	105	130	123	120	115	114	99	95	93
Minority Interest	0	0	0	0	0	0	0	0	0	0	0	0
Operating Net	292	-39	-409	164	204	193	188	180	179	155	149	146
Special Charges/Gains	0	0	0	0	0	0	0	0	0	0	0	0
Reported Net Income	292	-39	-409	164	204	193	188	180	179	155	149	146
Pfd Div	39	36	34	40	40	40	40	40	40	40	40	40
Net for Common	253	-75	-443	124	164	153	148	140	139	115	109	106
Dividends	59	59	59	59	59	59	59	59	59	59	59	59
Retained Earnings	194	-134	-502	65	105	94	89	81	80	56	50	47
Share Repurchase	0	0	225	0	0	0	0	0	0	0	0	0

BALANCE SHEET	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Current Assets	2,446	2,305	2,381	2,573	2,730	2,817	2,906	2,939	3,025	3,128	3,197	3,284
as a % of Sales	38	35	35	35	35	35	35	35	35	35	35	35
Net Fixed Assets	2,130	2,480	2,354	2,413	2,533	2,650	2,741	2,830	2,919	3,008	3,116	3,199
as a % of Sales	33	38	35	33	32	33	33	34	34	34	34	34
Other Assets	228	263	274	279	250	239	250	248	232	240	175	231
Total Assets	4,804	5,048	5,009	5,264	5,513	5,707	5,896	6,018	6,175	6,376	6,488	6,715
Current Liabs	1,303	1,479	1,568	1,691	1,794	1,851	1,909	1,932	1,988	2,056	2,101	2,158
St Debt	43	35	30	40	50	50	50	50	50	50	50	50
Long-Term Debt	618	715	896	900	900	920	940	950	950	1,000	1,000	1,100
Other incl Def Tax	399	496	590	654	694	716	739	747	769	795	813	835
Total Liabilities	2,320	2,690	3,054	3,245	3,388	3,488	3,588	3,629	3,707	3,851	3,914	4,093
Stockholder Equity	2,485	2,358	1,955	2,020	2,125	2,219	2,308	2,389	2,469	2,524	2,575	2,622
Preferred Stock	520	521	365	365	365	365	365	365	365	365	365	365
Equity for Common	1,965	1,837	1,590	1,655	1,760	1,854	1,943	2,024	2,104	2,159	2,210	2,257
Total Liabs&Equity	4,805	5,048	5,009	5,264	5,513	5,707	5,896	6,018	6,175	6,376	6,488	6,715
LT Debt/Capital	21	24	32	32	31	30	30	30	29	29	29	30

OTHER KEY VARIABLE	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Employment, '000	74	70	63	67	53	54	54	53	54	54	54	55
Capital Spending	863	909	504	600	675	700	700	720	740	760	800	800
Net Working Capital	1,143	826	813	882	936	966	996	1,008	1,037	1,073	1,096	1,126
EBITDA	857	560	345	893	974	984	1,006	1,014	1,035	1,015	1,031	1,051

KEY FIN RATIOS	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
ROE(NET/EQUITY)	0.13	-0.04	-0.28	0.07	0.09	0.08	0.08	0.07	0.07	0.05	0.05	0.05
ROSales(EBIT/SLS)	0.06	0.00	-0.04	0.05	0.05	0.05	0.05	0.05	0.04	0.04	0.04	0.04
ATO(SLS/ASSETS)	1.36	1.30	1.35	1.40	1.41	1.41	1.41	1.40	1.40	1.40	1.41	1.40
ROA(EBIT/ASSETS)	0.08	0.00	-0.05	0.07	0.08	0.07	0.07	0.06	0.06	0.05	0.05	0.05
LEVERAGE (ASS/EQ)	2.44	2.75	3.15	3.18	3.13	3.08	3.03	2.97	2.94	2.95	2.94	2.98
PRETAX/EBIT	0.88	-1.11	1.24	0.76	0.80	0.79	0.78	0.77	0.77	0.74	0.72	0.72
NET/PRETAX	0.71	3.57	1.46	0.46	0.49	0.48	0.48	0.47	0.47	0.45	0.45	0.44
PAYOUT RATIO	0.23	-0.79	-0.13	0.48	0.36	0.39	0.40	0.42	0.42	0.51	0.54	0.56

ITT CORPORATION

ITT is a U.S.-based multinational conglomerate. Major business activities include automotive components, semiconductors, defense electronics, fluid control technology, forest products (Rayonier), communications, hotels and property development (Sheraton), insurance (Hartford), and commercial finance. ITT's debt/capital ratio, including finance subsidiaries, was 51% at the end of 1991. ITT's bonds are rated A+, having been upgraded from A in 1990.

ITT CORPORATION	
Major Contracts	**Major Subcontracts**
Night Vision Devices	F-16 (electronic warfare)
SINCGARS (Single Channel Ground and Airborne Radio System)	AH-64 (electronic warfare)
MX Missile Rail Garrison	C-130 (electronic warfare)
Minuteman III Missile	F-14 (electronic warfare)
	Patriot (guidance)

Strategy: Use cash flow to restructure high cost debt. Restructure Electronics segment. Sell Alcatel equity interest to fund Hartford reserves increase and fund share repurchase.

Restructuring: As a classic conglomerate, ITT's stock trades at a discounted earnings multiple to the broad stock market. Conglomerates are an unfashionable corporate form at present, in part because their performance becomes too complicated to forecast accurately. Investors therefore require higher yields. ITT is seeking to address these concerns and enhance shareholder value. Active restructuring moves in 1992 included the sale of ITT's 30% share in Alcatel NV, and the announcement of an aggressive share repurchase program to bolster returns on equity.

The share repurchase program will be slower than originally anticipated, however, because ITT's largest division, Hartford Insurance, has suffered a serious of casualty and property losses this year from the Los Angeles riots, Hurricane Andrew, and Hurricane Iniki. Iniki also forced the temporary closure of Sheraton hotels in Hawaii.

ITT CORPORATION Prime Contract Awards (thousands of current dollars)						
	1987	1988	1989	1990	1991	5 YR TOTAL
Arms and Ordnance	$273	$199	$0	$0	$0	$472
Fire Control Equipment	251	633	0	48	0	932
Missiles and Space Vehicles	249	239	49	127	0	664
Aircraft and Equipment	442	600	40,219	21,322	597	63,180
Ships and Equipment	173	(28)	27	0	0	172
Vehicles and Equipment	344	105	0	0	40	489
Engines and Components	2,640	684	533	1,299	53,000	58,156
Electronics and Communications	547,898	389,485	715,107	613,106	564,893	2,830,489
ADP	1,860	44	0	142	0	2,046
Other Equipment	5,196	9,959	8,167	22,768	7,435	53,525
RDT&E	163,305	114,950	149,785	70,060	35,960	534,060
Professional Services	243,959	226,882	255,590	229,795	178,747	1,134,973
Maintenance and Modifications	17,411	14,502	21,757	17,617	53,252	124,539
Miscellaneous Services	19,011	25,259	24,650	30,308	68,693	167,921
TOTAL	$1,003,012	$783,513	$1,215,884	$1,006,592	$962,617	4,971,618

ITT's defense business supplies night vision goggles, tactical radios, avionics, and air traffic control radars. The defense segment accounted for 7.8% of 1991 operating profit on 5.9% of sales. Defense electronics are also manufactured by the Electronic Components division. This division has been unprofitable for two years.

Revenue Prospects: ITT's profits will fall in 1992, chiefly due to insurance segment losses and continuing weakness in the hotel business. Several ITT divisions are operating at well below pre-recession margins, economic recovery should produce a strong cyclical recovery in profits. ITT's share of Alcatel profits accounted for 15% of operating profits in 1991. Debt ratios for the company are expected to remain high. ITT's share repurchase program will sustain the company's current degree of leverage.

Risks: ITT's chief business risk may be weaker performance by the portfolios of its financial segments. Many insurance companies have suffered portfolio losses in the past two years. A slower than expected economic recovery has the potential to reduce earnings in the hotel, capital goods, and auto segments.

ITT FINANCIAL SUMMARY

SEGMENT REVENUE	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Automotive Products	2,852	2,916	2,933	3,000	3,150	3,340	3,500	3,680	3,860	4,050	4,250	4,470
Electronic Components	1,134	1,110	1,029	1,000	930	950	1,000	1,050	1,110	1,160	1,200	1,250
Fluid Technology	960	1,057	1,064	1,170	1,275	1,375	1,475	1,570	1,650	1,740	1,800	1,900
Defense Technology	1,580	1,612	1,201	900	800	750	725	710	720	725	725	725
Communication	754	973	1,028	1,200	1,270	1,350	1,430	1,500	1,600	1,700	1,800	1,910
Hotels	782	832	717	750	760	820	890	940	1,000	1,070	1,125	1,190
Forest Products	1,151	1,118	995	1,000	1,050	1,110	1,160	1,220	1,350	1,420	1,500	1,600
Dispositions and other	346	254	186	100	60	30	0	0	0	0	0	0
Net Nonfinancial	9,559	9,872	9,153	9,120	9,295	9,725	10,180	10,670	11,290	11,865	12,400	13,045
Finance	1,806	1,896	2,026	2,000	2,050	2,100	2,150	2,200	2,250	2,310	2,370	2,420
Insurance	8,689	8,836	9,242	9,250	9,400	9,870	10,300	10,900	11,400	11,900	12,400	12,900
Eliminations	0	0	0	0	0	0	0	0	0	0	0	0
Net	20,054	20,604	20,421	20,370	20,745	21,695	22,630	23,770	24,940	26,075	27,170	28,365

EARNINGS MODEL	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Total Net Sales	20,054	20,604	20,421	20,370	20,745	21,695	22,630	23,770	24,940	26,075	27,170	28,365
Cost of goods sold	17,494	18,330	18,133	18,129	18,401	19,200	20,005	20,989	22,022	23,024	23,991	25,075
as a % of Sales	87	89	89	89	89	89	88	88	88	88	88	88
Deprec	485	506	535	538	548	574	601	630	666	700	732	770
SG&A Incl R&D	0	0	0	0	0	0	0	0	0	0	0	0
as a % of Sales	0	0	0	0	0	0	0	0	0	0	0	0
Oper Income	2,075	1,768	1,753	1,703	1,796	1,921	2,024	2,152	2,252	2,351	2,447	2,521
as a % of Sales	10	9	9	8	9	9	9	9	9	9	9	9
Non-operating Inc	293	469	310	300	225	230	235	240	245	255	265	275
EBIT	2,368	2,237	2,063	2,003	2,021	2,151	2,259	2,392	2,497	2,606	2,712	2,796
as a % of Sales	12	11	10	10	10	10	10	10	10	10	10	10
Interest Exp	1,105	1,079	1,073	1,000	1,025	1,050	1,075	1,100	1,125	1,155	1,185	1,210
Special Items	-26	227	0	-680	0	0	0	0	0	0	0	0
Pretax Income	1237	1385	990	323	996	1101	1184	1292	1372	1451	1527	1586
Taxes	252	268	122	90	279	308	332	362	384	406	428	444
Minority Interest	63	61	51	50	50	50	50	50	50	50	50	50
Operating Net	922	1056	817	182	667	743	803	880	938	995	1050	1092
Special Charges/Gains	0	-98	0	466	0	0	0	0	0	0	0	0
Reported Net Income	922	958	817	648	667	743	803	880	938	995	1050	1092

1992 Gain from sale of Alcatel Interest. 1992 Special charge for Insurance losses.

ALLIANT TECHSYSTEMS INCORPORATED

A two-year-old independent company with $1.2 billion in sales, Alliant TechSystems (ATX) was spun off from Honeywell in 1990. ATX plans to expand its profitable munitions business by growing foreign sales, notably of the MK-46 torpedo and tank ammunition, while gradually expanding its product base. The Information Storage business was sold this year, and the Olin munitions business purchased. This leaves ATX a near-monopoly supplier of 120mm M1A1 tank ammunition, which has excellent overseas sales prospects as Saudi Arabia and Kuwait increase M1A1 tank purchases. ATX has a 42% Debt/Capital ratio and is unrated.

Strategy: Strategic acquisitions to reinforce core defense businesses and sustain EPS growth.

Acquisitions: Olin Ordnance Division (1992)

Divestitures: Metrum Information Storage (1992)

Revenue Prospects: Management has identified ATX's core capabilities as target defeat mechanisms, sensors, fuses, and embedded signal processing, and believes that the company can successfully expand its share of the defense munitions business by acquisition and competitive bid success. Non-defense applications have been sold. Metrum Information Storage was sold due to its increasing non-defense focus.

Long-term debt has been reduced from 59% to 42% of capital in two years.

Risks: Operating margin is currently about 17% of revenues. Margins are subject to risk, since foreign sales may be a disappointment, particularly torpedoes. Most analysts have lowered operating earnings estimates for 1992-94. Depreciation currently exceeds capital spending. Capital spending and company-funded R&D are each expected to run at about 2% of sales. Most R&D is customer-funded. DRI sees little cash flow risk for ATX, since training, practice, and the expansion of the global M1A1 tank population will produce sustained repeat sales.

Financial Outlook: The debt/capital ratio does not rule out future acquisitions. Management has announced a target 25% debt/capital ratio, but this did not stop the Olin purchase. Olin sold its division for stock, and now holds 22% of ATX. Major investors of record have increased their holdings of ATX this summer. Interest expense is about 1% of revenue. A gradual reduction in long-term debt is likely but not urgent.

Flat sales and a modest margin improvement appears the most likely near-term scenario for ATX. Improved margins on foreign munitions sales may follow the Olin purchase. A gradual increase in foreign sales may lift the foreign share of sales toward 15%. Marine systems sales are expected to drop significantly.

ALLIANT TECHSYSTEMS FINANCIAL SUMMARY

SEGMENT REVENUE	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Defense and Marine	1,157	1,148	1,187	1,187	1,000	1,200	1,250	1,250	1,250	1,260	1,270	1,300

EARNINGS MODEL	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Total Sales	1,259	1,248	1,187	1,187	1,050	1,200	1,200	1,225	1,230	1,230	1,230	1,250
Cost of goods sold	981	978	944	944	840	960	960	980	984	984	984	1,000
as a % of Sales	78	78	80	80	80	80	80	80	80	80	80	80
Deprec	32	34	28	28	25	23	23	23	23	21	22	23
SG&A Incl R&D	163	152	124	124	105	120	120	123	123	123	123	125
as a % of Sales	13	12	10	10	10	10	10	10	10	10	10	10
Oper Income	83	84	91	91	80	97	97	99	100	102	101	102
as a % of Sales	7	7	8	8	8	8	8	8	8	8	8	8
Non-operating Inc	0	-2	2	3	0	0	0	0	0	0	0	0
EBIT	83	82	93	93	80	97	97	99	100	102	101	102
as a % of Sales	7	7	8	8	8	8	8	8	8	8	8	8
Interest Exp	10	11	16	16	12	11	13	14	15	17	17	17
Special Items	-15	-37	-3	-3	0	0	0	0	0	0	0	0
Pretax Income	58	34	74	74	68	85	84	85	85	85	83	84
Taxes	15	9	28	28	26	32	32	32	32	32	32	32
Operating Net	42	24	46	46	42	53	52	53	53	53	52	52
Special Charges/Gains	0	0	-7	-7	0	0	0	0	0	0	0	0
Reported Net Income	42	24	39	39	42	53	52	53	53	53	52	52
Pfd Div	0	0	0	0	0	0	0	0	0	0	0	0
Net for Common	42	24	39	39	42	53	52	53	53	53	52	52
Dividends	0	0	0	0	10	15	20	20	20	20	20	20
Share Repurchase	0	0	0	0	20	20	25	25	25	25	25	25
Retained Earnings	42	24	39	39	12	18	7	8	8	8	7	7

BALANCE SHEET	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Current Assets	316	344	345	345	305	348	348	355	357	357	357	363
as a % of Sales	25	28	29	29	29	29	29	29	29	29	29	29
Net Fixed Assets	154	149	122	122	117	116	115	117	119	125	130	135
as a % of Sales	12	12	10	10	11	10	10	10	10	10	11	11
Other Assets	9	14	55	55	83	105	123	131	148	155	156	158
Total Assets	479	507	522	522	504	569	587	604	623	636	643	655
Current Liabs	204	225	209	209	189	216	216	221	221	221	221	225
St Debt	0	23	23	20	20	20	20	20	30	30	30	30
Long-Term Debt	111	136	108	108	100	120	130	135	145	150	150	150
Other incl Def Tax	0	14	27	27	25	25	26	26	27	27	27	28
Total Liabilities	315	375	344	344	314	361	372	382	393	398	398	403
Stockholder Equity	164	132	178	178	190	208	215	222	230	238	245	252
Equity for Common	164	132	178	178	190	208	215	222	230	238	245	252
Total Liabs&Equity	479	507	522	522	504	569	587	604	623	636	643	655
LT Debt/Capital	40	51	38	38	34	37	38	38	39	39	38	37

OTHER KEY VARIABLE	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Employment, '000	8	8	7	7	7	7	7	7	7	7	7	7
Capital Spending	32	32	20	20	20	22	23	25	25	27	28	28
Net Working Capital	112	119	136	136	116	132	132	135	135	135	135	138
EBITDA	115	116	121	121	105	120	120	123	123	123	123	125
Implied free Cash Flow(E	58	29	66	83	93	70	84	81	83	79	78	78

KEY FIN RATIOS	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
ROE(NET/EQUITY)	0.258	0.185	0.219	0.219	0.221	0.254	0.241	0.237	0.229	0.222	0.212	0.208
ROSales(EBIT/SLS)	0.066	0.066	0.078	0.078	0.076	0.081	0.081	0.081	0.081	0.083	0.082	0.081
ATO(SLS/ASSETS)	2.628	2.462	2.274	2.274	2.083	2.109	2.045	2.028	1.973	1.933	1.913	1.909
ROA(EBIT/ASSETS)	0.173	0.162	0.178	0.178	0.159	0.170	0.165	0.165	0.160	0.160	0.156	0.155
LEVERAGE (ASS/EQ)	2.921	3.841	2.933	2.933	2.652	2.737	2.733	2.715	2.710	2.676	2.629	2.600
PRETAX/EBIT	0.695	0.410	0.796	0.796	0.848	0.882	0.863	0.857	0.852	0.836	0.830	0.832
NET/PRETAX	0.734	0.726	0.527	0.527	0.620	0.620	0.620	0.620	0.620	0.620	0.620	0.620
PAYOUT RATIO	0	0.00	0.00	0.00	0.24	0.28	0.39	0.38	0.38	0.38	0.39	0.38

1994 and subsequent years include Olin Acquisition

FMC CORPORATION

FMC is a $1.6 billion chemical company with a $1 billion defense business, a $900 million machinery business and 3 gold mines. FMC's highly profitable defense businesses accounted for 28% of revenues and contributed 37% of operating profits in 1991. Sale of the defense business would be dilutive, but the association of FMC with defense hurts the share price, since defense stocks have low multiples. FMC derived 46% of operating earnings from its industrial and specialty chemical segments in 1991, but does not command a chemical company multiple.

FMC CORPORATION
Major Contracts
M113 (Foreign Military Sales) Bradley Fighting Vehicle CIFV (Composite Infantry Fighting Vehicle) AIFV (Armored Infantry Fighting Vehicles)

Strategy: Consolidate downsized armor and naval gun defense businesses via joint venture. Retain defense cash flow to reduce debt.

Total corporate debt is high but manageable. FMC's high debt load stems from a recapitalization of the company in 1986. Its current BBB- rating, however, is an improvement. FMC debt has received an investment grade rating for only a year. The company has a strong free cash flow, $225 million in 1991. Free cash flow is expected to exceed $200 million annually in 1992-94. This will permit a rapid decline in the debt/capital ratio.

Revenue Prospects: While the sale of the defense business has been suggested by some analysts, we doubt that FMC will wish to sell its most profitable segments. A more likely scenario is a joint venture with GD, which is already collaborating with FMC on chassis plans for a new generation of armored vehicles. A new Army gun, the Advanced Field Artillery System, is a major potential revenue source. FMC is undertaking funded development of the program.

FMC CORPORATION Prime Contract Awards (thousands of current dollars)						
	1987	1988	1989	1990	1991	5 YR TOTAL
Arms and Ordnance	$15,330	$82,855	$38,785	$23,207	$58,324	$218,501
Fire Control Equipment	1,325	(271)	479	0	0	1,533
Missiles and Space Vehicles	151,938	157,784	122,638	155,363	55,306	643,029
Aircraft and Equipment	0	0	0	0	0	0
Ships and Equipment	0	126	0	81	86	293
Vehicles and Equipment	460,905	477,592	526,766	367,075	1,274,262	3,106,600
Engines and Components	1,530	147	244	5,883	164	7,968
Electronics and Communications	307	1,557	156	1,460	791	4,271
ADP	(124)	0	0	0	0	(124)
Other Equipment	8,834	2,618	1,254	1,775	2,732	17,213
RDT&E	103,749	94,792	80,140	53,620	77,856	410,157
Professional Services	5,556	1,524	2,439	29,322	24,942	63,783
Maintenance and Modifications	12,046	23,027	13,842	3,133	5,380	57,428
Miscellaneous Services	540	1,065	1,769	3,037	5,525	11,936
TOTAL	$761,936	$842,816	$788,512	$643,956	$1,505,368	$4,542,588

We expect FMC to manage older business lines for cash but retain a significant R&D base in Ground Systems artillery. Defense capital spending and R&D were cut sharply in 1991. Substantial defense workforce reductions are scheduled for 1993-94. Armored personnel carrier production and naval system production rates will drop in 1992, and drop further in 1993-94.

Financial Outlook: FMC's industrial and performance chemical and machinery businesses are exposed to the global business cycle, with significant sales shares abroad. European recession has weakened earnings. A substantial earnings acceleration will await a recovery in global economic growth. Cash flow projections are based on sluggish revenue gains.

Sale of the defense businesses, while not expected, is a clear possibility. A defense business sale would immediately generate enough cash to sharply reduce debt and likely lead to a much higher multiple for the company's stock. This would seem unlikely before a recovery in earnings momentum in the chemicals segments, however.

FMC FINANCIAL SUMMARY

SEGMENT REVENUE	***1989***	***1990***	***1991***	***1992***	***1993***	***1994***	***1995***	***1996***	***1997***	***1998***	***1999***	***2000***
Industrial Chemicals	976	1,030	1,035	1,040	1,115	1,200	1,270	1,350	1,430	1,510	1,600	1,700
Precious Metals	190	188	158	170	150	140	145	155	160	160	165	170
Defense Systems	900	1,067	1,172	1,080	850	700	650	600	550	550	575	575
Performance Chemical	566	594	649	710	780	830	890	950	1,010	1,100	1,170	1,250
Machinery	783	846	892	885	940	1,005	1,066	1,130	1,200	1,270	1,330	1,500
Eliminations	1	2	5	5	4	3	3	3	4	4	5	5
Net	3,415	3,722	3,899	3,880	3,831	3,872	4,018	4,182	4,346	4,586	4,835	5,190

EARNINGS MODEL	***1989***	***1990***	***1991***	***1992***	***1993***	***1994***	***1995***	***1996***	***1997***	***1998***	***1999***	***2000***
Total Net Sales	3,415	3,722	3,899	3,880	3,831	3,872	4,018	4,182	4,346	4,586	4,835	5,190
Cost of goods sold	2,320	2,560	2,719	2,677	2,643	2,672	2,772	2,886	3,020	3,187	3,360	3,607
as a % of Sales	68	69	70	69	69	69	69	69	70	70	70	70
Deprec	198	211	225	223	224	230	237	243	252	263	274	287
SG&A Incl R&D	596	644	631	621	613	627	659	694	717	757	798	856
as a % of Sales	17	17	16	16	16	16	16	17	17	17	17	17
Oper Income	301	307	325	359	350	343	350	359	357	379	403	439
as a % of Sales	9	8	8	9	9	9	9	9	8	8	8	8
Non-operating Inc	90	73	72	74	75	75	76	77	77	78	78	79
EBIT	391	380	397	433	425	418	426	436	434	457	481	518
as a % of Sales	11	10	10	11	11	11	11	10	10	10	10	10
Interest Exp	169	157	128	119	107	98	93	97	98	101	103	106
Special Items	4	-4	-10	0	0	0	0	0	0	0	0	0
Pretax Income	225	219	259	314	318	321	333	340	336	357	378	412
Taxes	62	56	83	101	105	106	110	112	111	118	125	136
Minority Interest	7	8	3	3	3	3	3	3	3	3	3	3
Operating Net	157	155	173	211	210	212	220	225	222	236	250	273
Special Charges/Gains	-20	0	-9	0	0	0	0	0	0	0	0	0
Reported Net Income	136	155	164	211	210	212	220	225	222	236	250	273
Pfd Div	0	0	0	0	0	0	0	0	0	0	0	0
Net for Common	136	155	164	211	210	212	220	225	222	236	250	273
Dividends	0	0	0	0	0	25	35	35	35	40	45	50
Retained Earnings	136	155	164	211	210	187	185	190	187	196	205	223
Share Repurchase	0	0	0	0	0	50	75	100	100	100	150	150

BALANCE SHEET	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Current Assets	1,312	1,295	1,180	1,203	1,226	1,278	1,326	1,380	1,434	1,513	1,596	1,713
as a % of Sales	38	35	30	31	32	33	33	33	33	33	33	33
Net Fixed Assets	1,345	1,507	1,484	1,496	1,532	1,577	1,621	1,677	1,751	1,828	1,914	2,007
as a % of Sales	39	40	38	39	40	41	40	40	40	40	40	39
Other Assets	162	157	152	312	394	450	554	614	661	719	728	777
Total Assets	2,819	2,959	2,816	3,012	3,151	3,305	3,500	3,672	3,846	4,061	4,238	4,497
Current Liabs	1,194	1,255	1,193	1,203	1,188	1,200	1,246	1,296	1,347	1,422	1,499	1,609
St Debt	101	100	63	75	80	80	90	90	95	100	110	120
Long-Term Debt	1,326	1,159	929	900	850	850	875	890	910	930	950	990
Other incl Def Tax	370	396	384	388	383	387	402	418	435	459	484	519
Total Liabilities	2,890	2,810	2,506	2,491	2,421	2,438	2,522	2,605	2,692	2,810	2,932	3,118
Stockholder Equity	-71	149	310	521	731	868	978	1,067	1,154	1,250	1,305	1,379
Equity for Common	-71	149	310	521	731	868	978	1,067	1,154	1,250	1,305	1,379
Total Liabs&Equity	2,819	2,959	2,816	3,012	3,151	3,305	3,500	3,672	3,846	4,061	4,238	4,497
Debt/Capital	105	89	76	65	56	52	50	48	47	45	45	45

OTHER KEY VARIABLE	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Employment, '000	24.10	23.90	23.10	21.92	20.82	20.27	20.19	20.40	20.21	20.57	20.84	21.63
Capital Spending	281.00	324.00	217.00	235.00	260.00	275.00	280.00	300.00	325.00	340.00	360.00	380.00
Net Working Capital	118.00	40.00	-13.00	0.00	38.31	77.44	80.36	83.64	86.92	91.72	96.70	103.80
EBITDA	588.60	591.30	621.80	656.00	649.65	648.06	662.63	679.21	685.44	720.04	754.90	805.60
Implied free Cash Flow(E	251.10	184.50	319.90	288.96	244.09	236.28	286.71	279.43	259.16	274.74	286.92	312.50

KEY FIN RATIOS	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
ROE(NET/EQUITY)	-1.93	1.04	0.53	0.40	0.29	0.24	0.23	0.21	0.19	0.19	0.19	0.20
ROSales(EBIT/SLS)	0.11	0.10	0.10	0.11	0.11	0.11	0.11	0.10	0.10	0.10	0.10	0.10
ATO(SLS/ASSETS)	1.21	1.26	1.38	1.29	1.22	1.17	1.15	1.14	1.13	1.13	1.14	1.15
ROA(EBIT/ASSETS)	0.14	0.13	0.14	0.14	0.13	0.13	0.12	0.12	0.11	0.11	0.11	0.12
LEVERAGE (ASS/EQ)	-39.93	19.86	9.08	5.78	4.31	3.81	3.58	3.44	3.33	3.25	3.25	3.26
PRETAX/EBIT	0.58	0.58	0.65	0.73	0.75	0.77	0.78	0.78	0.77	0.78	0.79	0.80
NET/PRETAX	0.61	0.71	0.63	0.67	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66
PAYOUT RATIO	0.00	0.00	0.00	0.00	0.00	0.12	0.16	0.16	0.16	0.17	0.18	0.18

GTE CORPORATION

GTE is a $20 billion telephone and telecommunications products company. GTE is the largest local telephone company in the U.S., and the second largest cellular phone company, following its merger with Contel in 1990. GTE's telecoms product business includes GTE Government Systems, a major supplier of communications equipment to the armed forces. GTE's bond debt is A-rated. Debt was 63% of capital at the end of 1991.

GTE CORPORATION
Prime Contract Awards (thousands of current dollars)

	1987	1988	1989	1990	1991	5 YR TOTAL
Arms and Ordnance	$0	$0	($38)	$0	$0	($38)
Fire Control Equipment	0	0	0	0	289	289
Missiles and Space Vehicles	59,216	36,732	7,920	(438)	1,355	104,785
Aircraft and Equipment	0	0	0	0	0	0
Ships and Equipment	0	0	0	0	0	0
Vehicles and Equipment	305	621	0	0	0	926
Engines and Components	0	0	0	0	0	0
Electronics and Communications	1,991,097	238,926	2,182,595	1,008,920	261,014	5,682,552
ADP	75	126	104	421	0	726
Other Equipment	1,846	1,484	1,562	2,157	1,195	8,244
RDT&E	221,948	60,712	79,603	119,254	70,257	551,774
Professional Services	25,184	25,411	32,829	79,322	99,328	262,074
Maintenance and Modifications	20,813	8,151	7,667	11,605	18,864	67,100
Miscellaneous Services	36,647	36,134	37,228	88,666	46,238	244,913
TOTAL	$2,357,131	$408,297	$2,349,470	$1,309,907	$498,540	$6,923,345

Strategy: Focus on core competence in local and mobile telephone services. Expand cellular business at home and abroad. Consolidate cost-saving benefits of Contel merger. Sustain ongoing improvements in operating efficiency. Divest electrical products division. Restore operating margins in telecommunications products.

Acquisitions: Contel: 1990. Merger with Contel was responsible for the 22.8% increase in telephone operations revenues in 1990. GTE is now the second largest cellular telephone company in the U.S.

Divestitures: GTE intends to sell all of its Electrical products division. Sale of the Lamp division (Sylvania) has been agreed with Siemens for approximately $1.1 billion.

Telecommunications Products now account for approximately 20% of GTE revenues. Recession-influenced sales weakness to commercial customers plus defense cutbacks stalled sales and reduced operating margins in 1991. Revenues have jumped 8% in 1992, however, and should continue expanding strongly in 1993. Operating profits are staging a cyclical recovery. GTE Government systems supplies a variety of communications products to the armed services, including the Army Mobile Subscriber Equipment communications.

Revenue Prospects: GTE's local telephone businesses operate in regulated markets. Trend revenue growth is expected to be in the 3% range for basic local telephone services. GTE has recently begun to make new regulatory agreements under which productivity savings are split between GTE and customers. This holds the promise of higher future operating margins. GTE's cellular revenues are expected to rise more rapidly throughout the decade as the market expands in the U.S. and abroad.

Risks: GTE management argues that future telecommunications, including video and data, will require broad band fiber-optic networks. Current regulations preclude GTE from direct competition with cable TV companies. Regulatory changes have the potential to dramatically influence future revenue growth opportunities.

GTE FINANCIAL SUMMARY

SEGMENT REVENUE	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Telephone operations	12,459	12,762	15,652	16,120	16,734	17,386	18,082	18,769	19,426	20,100	20,800	21,500
Telecoms Products	2,838	3,390	4,005	4,325	4,700	5,045	5,400	5,700	6,000	6,400	6,800	7,200
Discontinued Ops	2,184	2,276	1,328	140	0	0	0	0	0	0	0	0
Eliminations	57	54	1,364	50	50	55	60	60	60	60	60	60
Net	17,424	18,374	19,621	20,535	21,384	22,376	23,422	24,409	25,366	26,440	27,540	28,640

EARNINGS MODEL	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Total Net Sales	17,424	18,374	19,621	20,535	21,384	22,376	23,422	24,409	25,366	26,440	27,540	28,640
Cost of goods sold	11,804	12,332	12,283	12,875	13,429	14,030	14,686	15,304	15,904	16,578	17,268	17,957
as a % of Sales	68	67	63	63	63	63	63	63	63	63	63	63
Deprec	2,610	2,753	3,254	3,493	3,655	3,806	3,983	4,169	4,345	4,515	4,706	4,902
SG&A Incl R&D	0	0	0	0	0	0	0	0	0	0	0	0
as a % of Sales	0	0	0	0	0	0	0	0	0	0	0	0
Oper Income	3,010	3,289	4,084	4,167	4,300	4,540	4,753	4,935	5,117	5,347	5,566	5,781
as a % of Sales	17	18	21	20	20	20	20	20	20	20	20	20
Non-operating Inc	256	261	152	150	150	150	150	150	150	150	150	150
EBIT	3,266	3,550	4,236	4,317	4,450	4,690	4,903	5,085	5,267	5,497	5,716	5,931
as a % of Sales	19	19	22	21	21	21	21	21	21	21	21	21
Interest Exp	1,073	1,185	1,575	1,400	1,326	1,387	1,452	1,513	1,573	1,639	1,707	1,776
Special Items	0	0	-342	1,600	0	0	0	0	0	0	0	0
Pretax Income	2,193	2,365	2,319	4,517	3,124	3,303	3,451	3,572	3,694	3,858	4,009	4,155
Taxes	647	689	662	900	1,093	1,156	1,208	1,250	1,293	1,350	1,403	1,454
Minority Interest	0	0	0	0	0	0	0	0	0	0	0	0
Operating Net	1,546	1,676	1,657	3,617	2,030	2,147	2,243	2,322	2,401	2,507	2,606	2,701
Special Charges/Gains	0	0	0	0	0	0	0	0	0	0	0	0
Reported Net Income	1,546	1,676	1,657	3,617	2,030	2,147	2,243	2,322	2,401	2,507	2,606	2,701

1992 Net includes $1.6 bn from sale of Sprint Interest & Electrical Products units (Sylvania)

PART II

NON-DEFENSE MARKET OPPORTUNITIES AND DEFENSE CONTRACTORS

MARKET FINDINGS

DRI studied six non-defense markets offering U.S. defense contractors the potential to offset some of the lost revenue resulting from reduced government spending on national defense. The six markets are commercial aircraft manufacturing, air traffic control systems, non-defense space, environmental services, intelligent vehicle-highway systems, and high-speed ground transportation. These markets were chosen because they require large scale high-technology systems integration and complex systems capabilities, skills resident with U. S. defense contractors.

This study investigated the factors driving demand and forecasted the market sizes to the year 2002. DRI evaluated total market size in relation to the shortfall created by the defense spending decline and estimated the extend to which these alternative markets could potentially help defense contractors maintain the financial strength needed to sustain the industrial base.

After conducting the analysis, DRI concluded that the six markets will not provide significant near-term revenue for U.S. defense contractors and will therefore not yield relief from declining defense business lines. The commercial aircraft market is sizable but is not likely to grow over the next ten years. In addition, it is highly competitive with manufactures struggling to maintain their existing revenue stream. Strong growth in the air traffic control market will provide modest opportunities for defense contractors, especially if U.S. firms can successfully compete in the rapidly expanding international market. As with the commercial aircraft and air traffic control markets, the space market is already served by a number of defense contractors. In the face of aggressive competition and declining space-relate budgets, the non-defense space market offers limited near-term opportunity.

The market for environmental services will grow sharply over the next ten years, but the market segments related to defense contractor capabilities will be relatively small. In addition, there are a number of highly skilled firms already competing in this complex market. Finally, the two remaining markets, intelligent vehicle-highway systems and high-speed ground transportation provide long-term opportunities but not much revenue replenishment for defense contractors over the next ten years.

COMMERCIAL JET TRANSPORT AIRCRAFT MANUFACTURING

THE MARKET

Due to the tremendous financial risks associated with aircraft production, there are only three firms that manufacture products classified as commercial jet transports: Boeing (U.S.), Airbus Industries (European consortium), and McDonnell Douglas (U.S.). Individual responsibilities of each aircraft manufacturer (or integrator) include: aircraft design, final system integration, supplier/subcontractor management, final assembly, marketing, and customer support. In addition to these airframe integrators, there are three major manufacturers of commercial jet engines: General Electric (U.S.), United Technology's Pratt & Whitney (U.S.), and Rolls Royce (Great Britain).

The large transport market is highly concentrated at the top of the production pyramid, supported by thousands of domestic and international suppliers. Because competitive pressures are so intense, suppliers try to work with each of the manufacturers. Boeing and McDonnell Douglas subcontract a greater proportion of the total aircraft (60-70%) than does Airbus, which makes a determined effort to keep work in house, in accordance with the legal statutes of the Airbus partnership. Given its sheer volume of production, Boeing relies on more suppliers than McDonnell Douglas and Airbus combined. Approximately 85% of Boeing's supplier purchases are made in the U.S.

A number of top U.S. defense contractors already operate as major airframe subcontractors. Examples include Northrop (B747), Vought Aircraft Co., formerly LTV, (B747, B757, B767), General Dynamics (MD-11), Rockwell (B747, B757, B777), Textron (A330/340, B757). Other suppliers include: Grumman, TRW, Westinghouse, Allied-Signal, and Lockheed.

CURRENT STATUS

Slightly over $40 billion of jet transport aircraft were delivered in 1991. The 1970 to 1991 average was $18 billion (in 1992 dollars). As the numbers indicate, the industry has significantly raised its level of output.

The backlog remains large as a result of the large volume of 1988-90 orders. Since then, orders have slowed significantly.

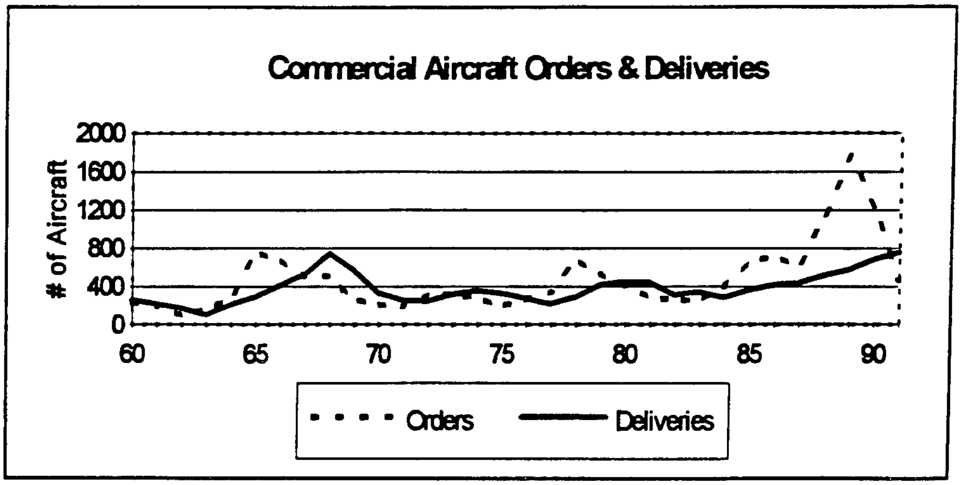


Figure. 1

As indicated by Figure 1, the commercial aircraft industry is highly cyclical with major changes in order and delivery levels.

OUTLOOK

Rapidly expanding travel over the next 20 years will generate strong demand for new commercial air transports, thereby ensuring a robust market for manufacturers and suppliers. As global integration dictates stronger economic ties between countries, international air travel will grow dramatically. Travel demand from already industrialized countries will show robust growth, while smaller emerging economies, most notably Asia, will also require additional access to air transportation. Rising incomes and the resulting increase in leisure time will further spur travel growth across all regions.

Within certain geographic regions where airspace limitations impose constraints, alternative transportation modes will be utilized to better serve increasing travel requirements. However, barring an extended period of high energy costs, air transport will continue to be the preferred and most cost effective mode of inter-city and inter-region travel. Likewise, advances in telecommunications will provide alternatives to business travel, but will not radically alter evolving air travel patterns.

In addition, the importance of cargo transportation will grow in response to a combination of factors: strong growth in inter-country trade flows, greater need to move goods quickly, and increasingly competitive costs versus alternative transportation modes.

While the potential revenue for aircraft manufacturers is much higher over the next ten years than it was for the previous decade, the industry is heading into a period of decline. DRI forecasts the total value of worldwide deliveries between 1993 and 2002 to be over $365 billion (constant dollars). Average annual deliveries of $36.5 billion will be well above past performance levels, but will fall from a peak of $40.7 billion in 1993 to $31.7 billion in 1997, a drop of over 20%.

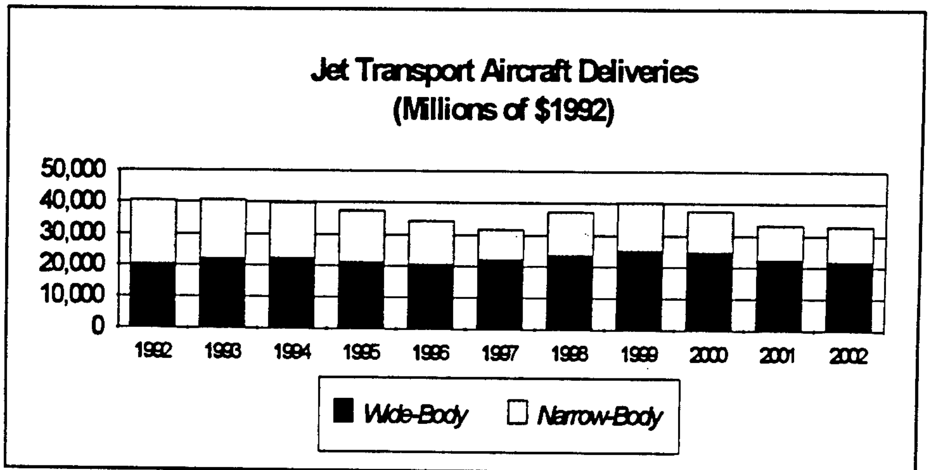


Figure. 2

Wide-Body aircraft are becoming an increasingly larger and larger portion of the total market (see Figure 2). Suppliers to these programs, including the Boeing 747,767 and 777, the Airbus A300, A330 and A340, and the McDonnell Douglas MD-11, have the strongest outlook over the near and long-term.

SUMMARY: OPPORTUNITIES FOR U.S. DEFENSE CONTRACTORS

Commercial aircraft manufacturing is a logical choice for U.S. defense contractors. Many contractors already operate in this market. Unfortunately, the commercial market will provide only a partial offset to their declining DoD opportunities.

As mentioned above, the near-term outlook includes a significant decline from current levels. Obviously, firms already operating as suppliers will experience a reduction in revenue as a result of the downturn. In constant dollars terms this means a decline of over 20% in revenue potential. Even before accounting for the effects of inflation, the market will be only slightly larger by the year 2002. Thus, the commercial aircraft market does not promise many opportunities for defense contractors to offset losses in military work.

Also working against commercial aircraft suppliers is a significant over-capacity of worldwide production capabilities. This over-capacity will only be further compounded by the high volume of aircraft set for production and delivery in 1992 and 1993, and the volume and dollar declines through 1997.

The major reason for worldwide over-capacity is the large level of government subsidies that have accrued to manufacturers around the world. The most obvious example is the Airbus Industries consortium, which has received over $26 billion in government support since its inception 18 years ago. Other examples include major government backing throughout Asia, most notably Japan. As a result, McDonnell Douglas has come under intense pressure as Airbus has increased its market share. It is highly likely that McDonnell Douglas will not survive the competition and will no longer be producing large wide-body aircraft after 2000. Suppliers, like General Dynamics on the MD-11 program, will see their work erode through the end of the decade.

Another threat to U.S. subcontractors is the increasing use of foreign manufacturers to perform the metal bending roles once undertaken by U.S. firms. There are three primary reasons why the airframe integrators are increasingly using international suppliers:

- by venturing with other firms, airframes can spread the overall financial risk, thereby reducing their own;
- in order to sell aircraft in other countries, the manufacturer must guarantee that a certain portion of the aircraft content be derived from indigenous sources; and
- as a mean of controlling overall costs, the manufacturer will try to find the lowest cost producer, no matter the location.

Even U.S. subcontractors are required to subcontract out some of their work to foreign firms. For example, in order to sell 747s to Korean Airlines Boeing required that its aircraft skin subcontractor, Northrop, subcontract to Korean manufacturers.

For these reasons, the large commercial jet transport market should not be viewed as a major offset to declining defense spending. Some defense contractors will successfully exploit revenue opportunities in this sector, but they will only maintain their revenues and are not likely to expand them.

AIR TRAFFIC CONTROL

THE MARKET

The air traffic control (ATC) market is defined as being existing or new transportation technologies that enhance the aviation system's safety, security, capacity and efficiency.

Record growth in air travel, globalization of the world's major air carriers, a push for uniform standards, and broad cooperation among nations on the development of future ATC systems such as the Global Navigation Satellite System (GNSS) and the Future Air Navigation Systems (FANS) programs have resulted in a truly international ATC market.

CURRENT STATUS

In 1991, world ATC equipment purchases totaled $6.3 billion. This represents an increase of ten percent from 1990, when total ATC spending was $5.8 billion. The U.S. and the Pacific Rim dominate the ATC market, spending more than $2.3 billion and $1.3 billion respectively in 1991. The U.S./Pacific Rim share of the total market was nearly 65% in 1991, shown in Figure 3.

In the U.S., facilities and equipment appropriations (the main source of funding for ATC) have risen 10-fold, from $270 million in 1982 to almost $2.5 billion in 1992. Moreover, the General Accounting Office reported that the costs of one of the FAA's top priorities -- the Advanced Automation System (AAS) -- have increased from $2.4 billion to $5.5 billion. Completion of the AAS has been pushed back to 2005.

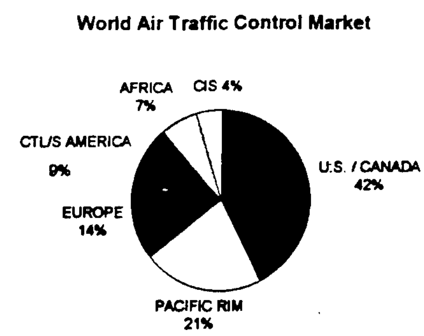


Figure 3

Selected defense contractors presently operate as prime or subcontractors in the ATC market. Examples include Raytheon (microwave landing systems, advanced automation systems, S-band radars), E-Systems (ATC/ocean surveillance), Rockwell Collins Avionics (ILS receivers), Grumman Aerospace (navigation systems), Hughes Aircraft (GPS, satellites), Loral Corporation (radars, switching devices), and Textron (microwave landing systems).

Internationally, Europe's ATC market is valued at nearly $1 billion annually and is expected to see substantial growth. The bulk of the ATC equipment in Europe is more than 20 years old and has become very outdated and inefficient. The vast majority is scheduled for replacement during the 1990s. According to contract awards information, the major contractors in the Europe ATC market are:

Thomson-CSF	30%
Siemens-Plessey Venture	20%
Alenia (Italy)	20%
Raytheon	20%
All Other	10%

The ever-increasing demands on the air travel infrastructure and the general rise in air traffic, which is already above capacity, is having a position impact on funding for advanced ATC equipment. Consequently, increased airport capacity will be a major objective of the future. Much of the money to be spent will involve upgrades, newly developed equipment, and complete replacements of existing air traffic management (ATM) systems. It is the design of these new ATM systems and Advanced Automation Systems (AAS) that are setting the standards for the growing international ATM market.

International air traffic is growing much faster than the growth of the U.S. market. Both U.S. and foreign ATM systems will be required to provide a full range of opportunities to benefit form new technologies. As a result, the ATM systems will receive favorable funding and experience significant improvements through the next decade. The goal of these improvements will be to make air traffic control equipment and operations as standard and flexible as is reasonably possible for different users and governments.

OUTLOOK

Aging transportation infrastructure around the world combined with increased air travel is driving demand for substantial increases in ATC spending. DRI/McGraw-Hill is projecting strong annual growth in the U.S. market of ten percent. Even stronger annual growth is projected for Europe, the Pacific Rim, and Africa.

As a case study, Europe is proceeding with implementation of its Eurocontrol project to modernize its air traffic management system. Eurocontrol is projected to cost more than $4 billion and take 12 years to complete.

The Eurocontrol project will pit the team of Thomson CSF/Siemens against Raytheon and other U.S. ATC suppliers. In France, the government has increased its ATC funding by 20%. 1993 ATC improvements and acquisitions will rise to more than $277 million.

Promotion of joint air worthiness and aviation standards and on-going General Agreement on Tariffs and Trade (GATT) talks to reduce regional disputes will go a long way toward improving the ATC efficiency and capacity. Major developments in the ATC market will present limited new contracting opportunities in the following programs:

- Capital improvement plan (CIP);
- Microwave landing systems (MLS) improvements;
- Global navigation satellite systems (GNSS);
- Global positioning system (GPS);
- Future Air Navigation Systems (FANS) program;

- Weather sensor programs;
- Stronger security and drug interdiction;
- Air traffic control and airport surface automation;
- Worldwide general aviation increases (LORAN-C);
- Automatic dependent surveillance;
- Secondary surveillance radar (SSR); and
- Traffic alert and collision avoidance systems (TCAS) technology.

The outlook for the world air traffic control market is shown in Figure 4.

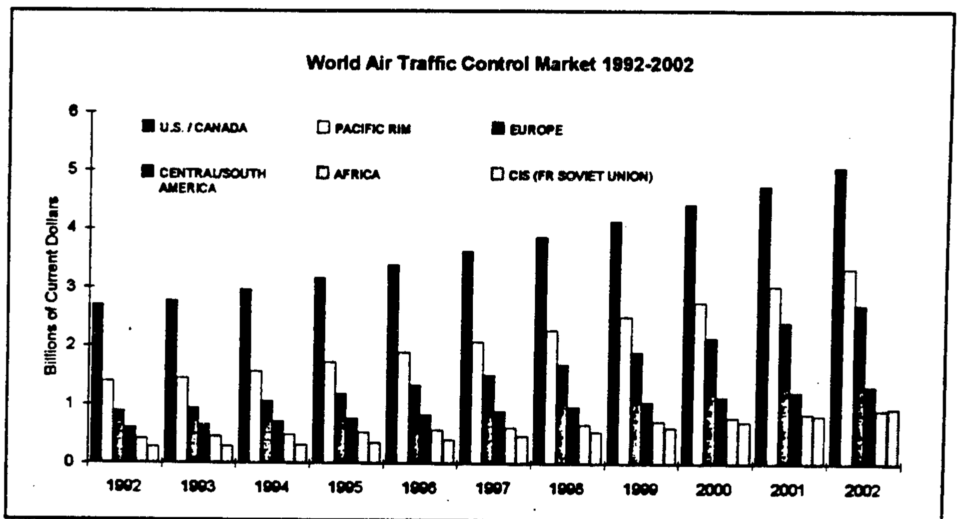


Figure 4

SUMMARY: OPPORTUNITIES FOR DEFENSE CONTRACTORS

As selected DoD contractors presently supply ATC systems and the international market is growing rapidly (expected growth of nearly ten percent annually will yield a $14.4 billion market in 2002), it appears there are opportunities for additional defense contractors to participate in the global ATC market. However, the market is relatively small and will not yield the contracting revenues required to significantly offset defense revenue declines.

The fastest growing markets for ATC are outside the U.S., causing some disadvantages for U.S. suppliers. In order to penetrate these markets, U.S. firms will need to engage in joint ventures requiring lowered profit margins.

THE SPACE INDUSTRY

THE MARKET

For the purpose of this study, DRI/McGraw-Hill defines the space industry as any non-DoD expenditures in space research and procurement. Our assessment and forecast includes two markets:

- NASA, commercial U.S. space sales, SIC 366 and 376; and
- international space expenditures.

The space industry is overwhelmingly a government sector activity. Close to 95 percent of the world's investment in space comes from government sources. However, while the commercial space industry is small, it is growing and most importantly, it is driven by commercial forces and not government spending. In commercial satellites and launch vehicles alone, U.S. industry will have sales of over a six hundred million dollars in foreign sales in 1992.

NOTE: Billions of 1991 Dollars

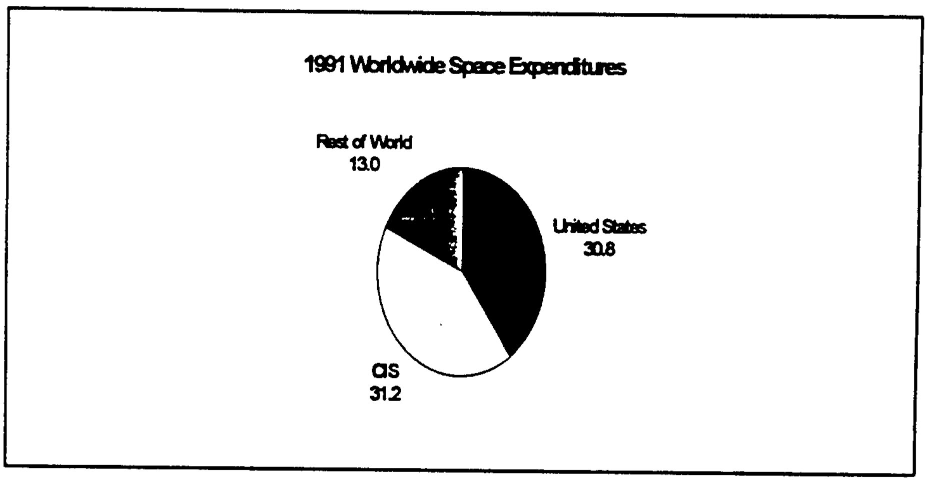


Figure 5

In June of 1992 the U.S. Department of Commerce released its forecasts for major industries and concluded that one sector -- *space commerce* -- was especially noteworthy with gains of 29 and 14 percent respectively, for 1991 and 1992 expected.

In 1991, worldwide space industry sales approached $75 billion (see Figure 5), distributed as follows:

United States	40 percent
Commonwealth of Independent States	42 percent
Rest of world	18 percent

U.S. space industry sales have risen from 14 percent of total aerospace sales in 1979 to 22 percent or $30.8 billion in 1991. Foreign space sales exceeded $45 billion in 1991. However, DRI/McGraw-Hill projects slow annual growth of 3.5-4% through 2002.

CURRENT STATUS

In the U.S., there are currently nearly 200 firms that have more than $5 million in sales resulting from government or commercial space. In fiscal year 1991, NASA alone awarded contracts that exceeded $10.2 billion. Leading defense contractors in the space industry include: Rockwell, McDonnell Douglas, Lockheed, Martin Marietta, Boeing, GE, TRW and Thiokol Corporation (see Figure 6).

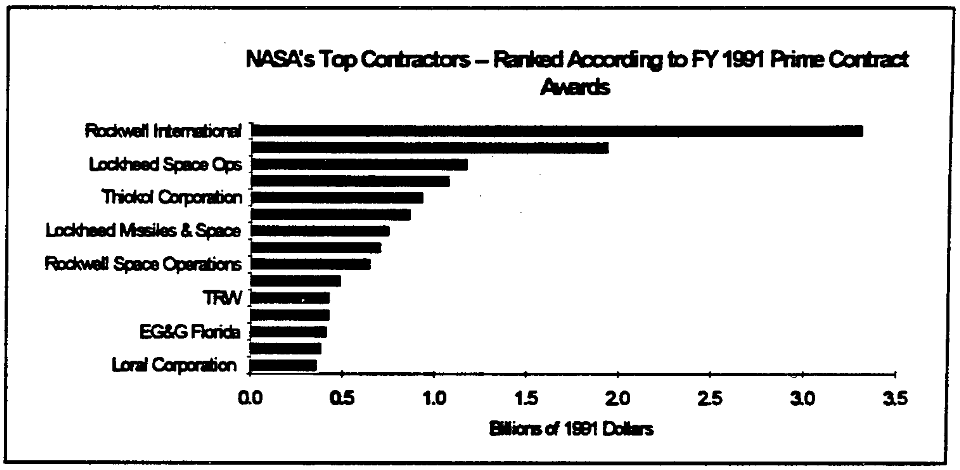


Figure 6

Internationally, major countries in the space industry outside the U.S. and the Commonwealth of Independent States are Europe, China and Japan. (see Figure 7 -- because China does not released its spending figures for space, Figure 7 only shows data for European countries and Japan). It is estimated that China spends approximately $3 billion per year on space and space-related satellite programs.

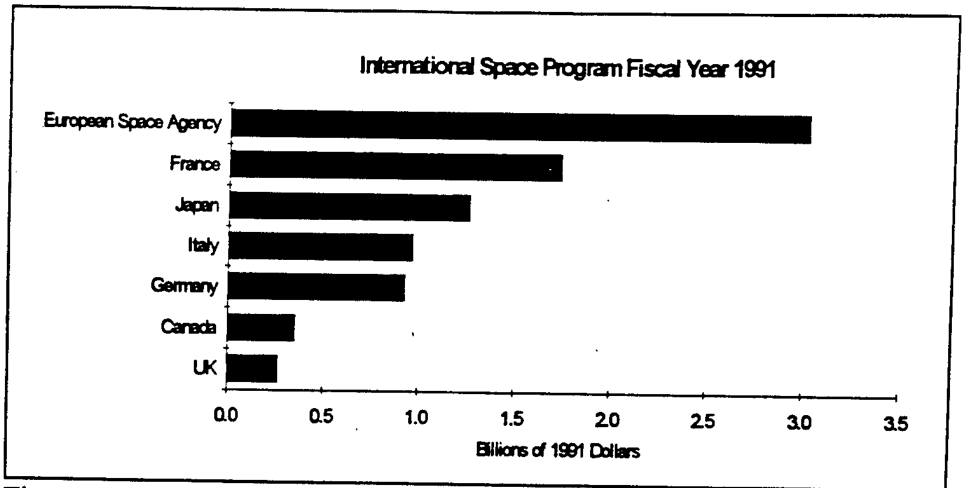
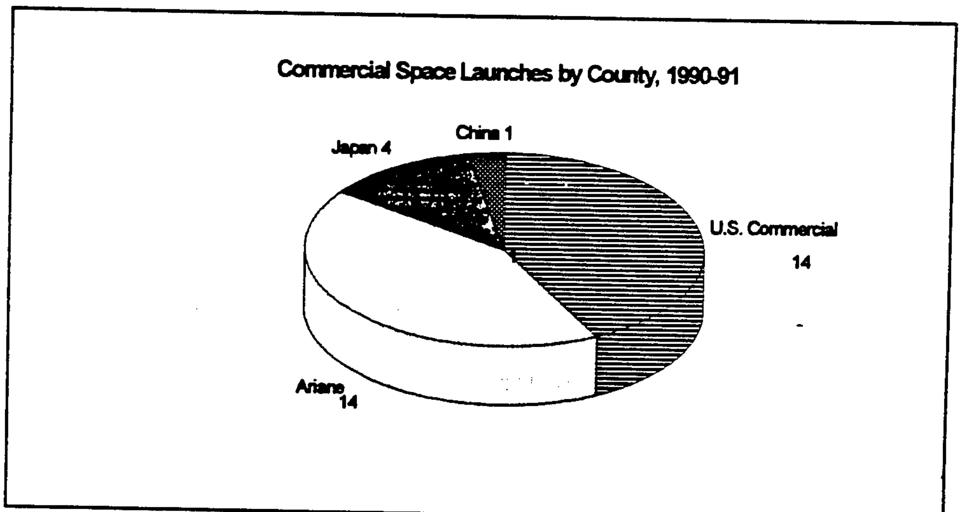


Figure 7

Growth in the U.S. and international commercial launch industry has leveled off at about 14-16 launches per year (see Figure 8). The launching of medium and large communication satellites is roughly split between U.S. companies and the Paris-based European launch consortium, Arianespace.



NOTE: Medium and large expendable launch vehicles, total = 33

SOURCE: U.S. launch companies, Arianespace

Figure 8

Currently, about 25 U.S. firms have revenues from space sales that exceed $100 million. It is these companies that make up the U.S. commercial space and launch industry who operate in an extremely competitive international market. Typically, the primary payload of commercial expendable launch vehicles (ELVs) are communications or environmental and atmospheric satellites. The average price charged for a launch is between $60 and $100 million depending upon the payload's size and the ELV used.

WORLDWIDE SPACE INVESTMENT

Of the $75 billion being spent worldwide on space, approximately 40% is being spent by the U.S., 42% by the Commonwealth of Independent States (CIS) and 18% by the rest of the world. Of the 18% spent by the rest of the world, Europe, China, and Japan lead -- spending 43%, 30%, and 12% respectively (see Figure 9).

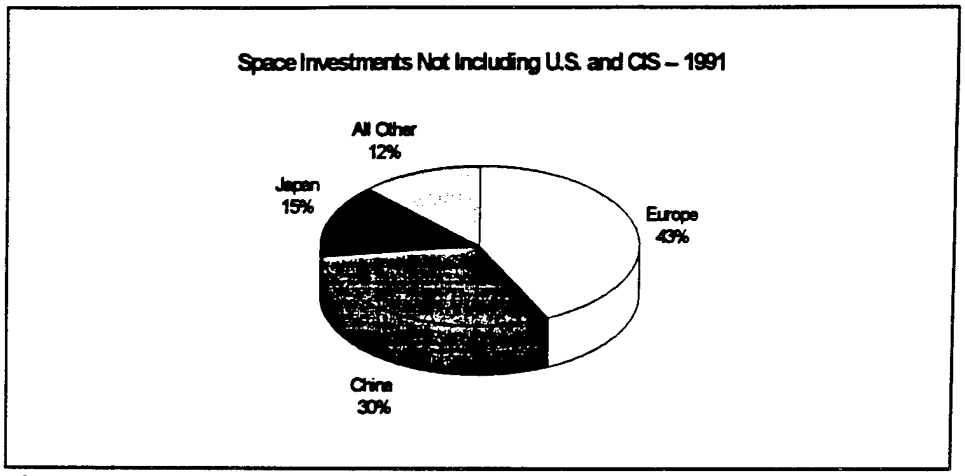


Figure 9

OUTLOOK

While other nations are moving forward on state-of-the-art programs, global economic conditions have slowed the projected growth in the space industry.

Likewise, large increases in the U.S. space market will not occur due to:

- high budget deficits;
- risks and past failures in space; and
- no "Cold War" driving the space race.

DRI projects that U.S. space sales will see average annual increases of 3.2 percent through 2002 rising from $31 billion in 1992 to nearly $43 billion in 2002.

State of Technology - Dominating Specific "Niche" Areas of Space

Due to slower world-wide economic growth, dramatic risks, and budget constraints, DRI/McGraw-Hill believes both government and commercial space organizations will seek to specialize in specific areas or niche markets. In the U.S. for example, the big areas of focus are: the advanced solid rocket motor (ASRM) program; the space shuttle; and the space station (according to an analysis of the FY93 NASA appropriations bill as signed by President Bush).

Most major nations are focusing the bulk of their R&D funds in specific niche areas in order to position themselves for a future in space. In fact, multinational alliances have been and continue to be formed to study and evaluate investment in leading R&D efforts, including:

- communications;
- remote sensing;
- materials processing in space;
- terrestrial ground receiving equipment;
- propulsion; and
- life sciences.

The Japanese are investing heavily in space transportation, launch systems, and satellite receiving equipment -- spending approximately 75% of their total space budget on these activities. Japan's investment in satellite receiving equipment and terrestrial-based technologies will provide them a competitive advantage in the market for consumer receiving equipment from satellite transmissions. Similarly, France has invested 70% of its space budget in three areas: remote sensing; earth observation and space transportation (see Table 1 and Table 2).

Relative Specialization in Government Space Expenditures		
Country	**Area of Large Relative Expenditure**	**Percent of National Space Budget**
France	Space Transportation: Launch System	40%
	Earth Observation	22%
Japan	Space Transportation: Launch Systems	60%
Germany	Space Transportation	32%
	Space Science	22%
Italy	Communications	31%
United Kingdom	Earth Observations	26%
	Space Science	20%
Canada	Remote Sensing	39%
	Space Station/Robotics	29%

Table 1

SUMMARY: OPPORTUNITIES FOR DEFENSE CONTRACTORS

The U.S. faces vigorous competition in commercial space as other nations target specific market niches. Given the inconsistent commercial space policies abroad and in the U.S. it is unlikely that this market presents a robust opportunity for military contractors to replace lost revenue. Technological and research areas encompassed by space are present in some DoD contractors and it will be those that have proven capabilities that will benefit from growth.

Other Targeted Space Disciplines (Derived from Reviews of Industrial and Government Programs)	
Country	**Target Area**
France	Remote Sensing
	Largest Comprehensive Program in Europe
Germany	Material Processing
Italy	Scientific Satellites
Brazil	Launch Vehicles and Systems
China	Launch Vehicles and Systems
India	Launch Vehicles and Systems
	Communications Satellites
	Remote Sensing
Japan	Communications Satellites
	Remote Sensing
	Terrestrial Receiving Equipment

Table 2

However, in relatively new areas, such as earth observation, remote sensing, data management and terrestrial operations it does appear that new opportunities will develop. The growing commercial space industry will certainly demand more of these services through the 1990s.

The lower risk associated with earth-based operations and support will be areas where U.S. defense contractors would be capable of immediate competition. These operations include:

- management of launch sites;
- communications and control services;
- preparation and storage of payloads; and
- systems integration.

As other nations continue their support for well-focused "niche" markets in space, it is likely that they will surpass the U.S. as the leading supplier of a given technological capability. As a result, the U.S. may lose certain market advantages in commercial space due to this serious, well-focused competition from foreign governments. And, because there is no clear distinction between government and commercial industry ownership of resources outside the U.S., American firms in the same markets will suffer a competitive disadvantage.

It is clear that slow economic growth and tough budget battles will keep spending increases on both government and commercial space programs modest throughout the next decade. Opportunities for new entrants into the commercial space sector will be extremely difficult and the commercial space market is unlikely to replace lost revenue to defense contractors.

ENVIRONMENTAL SERVICES

THE MARKET

The environmental services market focuses on water, land, air, chemical, radiation, and multi-media pollution abatement and control products and services. Examples of traditional environmental services include resource recovery, hazardous waste management, engineering and consulting, and asbestos abatement. Other potential growth areas include pollution prevention and waste minimization, software development and management, waste-to-energy conversion, spill clean-up and control, and natural resource management.

CURRENT STATUS

Today the U.S. spends approximately $156 billion per year on environmental products and services, up from roughly $80 billion ten years ago. Worldwide the annual market size is $360 billion. One quarter of the U.S. market's $156 billion is spent on solid waste management. The remaining three quarters is divided (in order of market share) between the following: resource recovery, hazardous waste management, engineering/consulting, water infrastructure, water utilities, waste management equipment, air pollution control, asbestos abatement, instrument manufacturing, environmental energy, and analytical services.

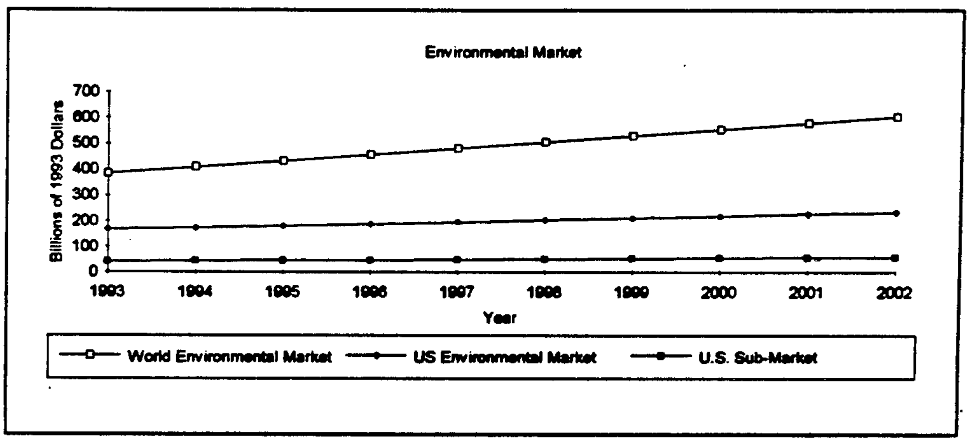
OUTLOOK

The environmental market will continue to grow for at least the next ten years. Regulatory requirements within the U.S. will drive up the demand for environmental cleanup services. Massive cleanup efforts are necessary throughout eastern Europe and the former Soviet Union. Latin American and Pacific Rim countries are also looking for ways to improve their environments. The U.S. market is forecast to grow at roughly four percent per year for the next ten years, reaching a level of $235 billion per year by 2002. The world environmental market is expected to show slightly higher growth, increasing by over five percent per year, and topping 600 billion dollars by 2002. Over the same period of time, the U.S. share of the worldwide environmental technology market will likely decline from over 50% to slightly under 47%.

SUMMARY: OPPORTUNITIES FOR U.S. DEFENSE CONTRACTORS

While the total environmental market is already large and growing rapidly, only certain portions of it are of interest to current defense contractors. The market segments most likely to attract their attention are hazardous waste management, engineering and consulting, and analytical services. These three segments presently account for 24% of the U.S. market, or $38 billion. In ten years they should account for 25% of the U.S. market, or $60 billion. Figure 10 summarizes the world environmental market, total U.S. environmental market, and U.S. sub-market as defined above.

Since the market is already established, numerous firms currently specializing in environmental services will have an advantage over possible new entrants in positioning themselves for future market growth. For this reason, the share of the market that current defense contractors can hope to secure is substantially less than the one quarter of the market identified above. The size of the market, however, means that even a small portion of those segments could represent a few billion dollars per year.



KEY: U.S. Sub-Market consists of Hazardous Waste Management, Engineering and Construction, and Analytical Services

SOURCE: Environmental Protection Agency, Management Information Services Inc., Environmental Business Journal, DRI/McGraw-Hill

Figure 10

INTELLIGENT VEHICLE-HIGHWAY SYSTEMS

THE MARKET

Intelligent Vehicle-Highway Systems (IVHS) refer to a group of advanced technologies (information processing, communications, electronics, and surveillance) applied toward the improvement of highway and public transportation systems. High technology applications will be integrated into both vehicles (personal automobiles, trucks, buses, etc.) and roadways.

The U.S. Department of Transportation lists the goals of IVHS as:

- improved safety,
- improved efficiency of the highway in terms of capacity and speed of travel,
- reduced energy consumption and improved air quality,
- improved efficiency and profitability of the commercial fleet, and
- improved incident response.

The attainment of these goals is possible using technologies that either exist now or are achievable through research and development. No major technological hurdles stand as an impediment to IVHS deployment.

FUNCTIONAL AREAS OF IVHS

IVHS can be divided into five functional areas:

- Advanced Traffic Management Systems (ATMS)
- Advanced Traveler Information Systems (ATIS)
- Advanced Vehicle Control Systems (AVCS)
- Commercial Vehicle Operations (CVO)
- Advanced Public Transportation Systems (APTS)

Each one of these categories has a particular set of characteristics and requirements, and each has a unique potential market.

Advanced Traffic Management Systems (ATMS) represent the highway component of the vehicle-highway partnership that is crucial to IVHS success. As the primary element of an integrated IVHS architecture, ATMS will provide information for use by the remaining four IVHS functional areas. ATMS will monitor traffic conditions, predict traffic congestion, provide real-time adjustment of traffic operations via traffic control systems, and accelerate accident response.

Advanced Traveler Information Systems (ATIS) will offer travelers information that will assist them in quickly reaching their desired destination. The primary information provided will be the location of the traveler's vehicle at all times, gathered utilizing navigational technology. This data will then be augmented with additional information, including traffic conditions, alternate routes, warnings regarding road safety, and directions to the nearest desired services (e.g., food, fuel, lodging). While the focus of ATIS is on providing drivers with information, this system can also be used to provide information on travel modes and options to people who are planning their trips.

Advanced Vehicle Control Systems (AVCS) are designed to assist drivers in vehicle operation. Such systems will perform two types of functions: they will provide perceptual enhancement and warning capabilities, and they will automate partial control over the vehicle. AVCS offers the potential for safer and more efficient travel, and marks a shift in emphasis from accident survival to accident avoidance. Early AVCS components will be self-contained within individual vehicles. Ultimately, such systems will require the existence of a complementary infrastructure, leading towards the creation of a fully automated highway.

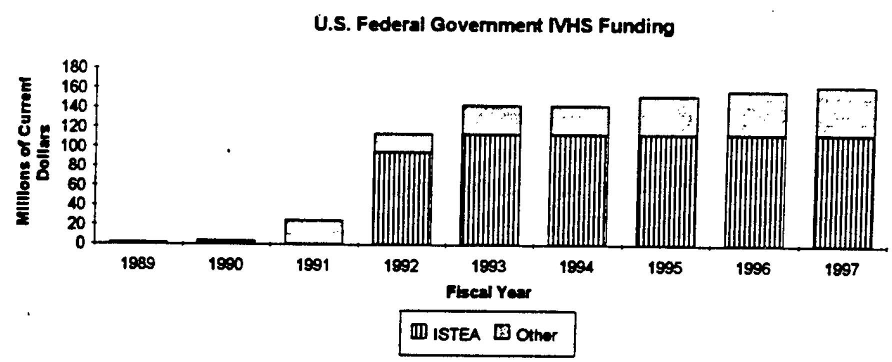
Commercial Vehicle Operations (CVO) have three primary goals: to enhance the safety of commercial vehicles and drivers, to increase the productivity of commercial vehicle operators and regulatory agencies, and to achieve overall commercial vehicle cost reductions. Commercial vehicles have different physical and operational characteristics than do passenger automobiles; examples of commercial vehicles include large trucks, buses, local delivery vans, taxis, and emergency vehicles. IVHS technologies applied to commercial vehicles could result in faster dispatching, more efficient routing, more timely pick-ups and deliveries, and improved accident response.

Advanced Public Transportation Systems (APTS) will integrate the technologies used in ATMS, ATIS, and AVCS to provide both the users and system/vehicle operators of mass transportation with support functions and up-to-date information services. APTS will be deployed in high occupancy, shared-ride vehicles, including conventional buses, school buses, taxicabs, and trains. APTS offers the potential for more dependable operation, more convenient fare payment methods, improved traveler safety and security, and greater flexibility in making ride-sharing arrangements.

CURRENT STATUS

While realization of the full potential offered by IVHS remains at least ten years away, certain basic IVHS technologies are already available. Today, automobiles can be equipped with air bags and antilock brakes (options found in 51 percent and 30 percent respectively of the 1992 automobiles built for the U.S. market), and Japanese consumers have already purchased 12,000 vehicles equipped with $3,000 autonomous navigation systems. In addition, many commercial fleets utilize static network routing and automatic vehicle location technologies, and over 30,000 commercial vehicles are tagged for automated toll collection.

The more promising current IVHS activity is the extensive research, development, and testing of IVHS technologies that is occurring nationally and world-wide. In Europe, industries and governments are spending over one billion dollars on IVHS activities over an eight year period. The Japanese have similar government/industry joint IVHS initiatives underway. In the U.S. alone, there are over forty IVHS projects and operational tests underway or planned. Federal funding for IVHS activities has increased from $2 million in 1989 to over $100 million today. The Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) authorizes a total of $659 million (in current dollars) to be spent on IVHS over the 1992 to 1997 time period. Additional federal funding during the ISTEA period should be in the range of $20 to 40 million per year range. ISTEA has as a goal the development of a completely automated prototype highway and vehicle system, to be operational by the end of 1997. Figure 11 summarizes near-term U.S. government IVHS funding.



KEY: ISTEA = Intermodal Surface Transportation Efficiency Act of 1991
SOURCE: U.S. Department of Transportation and DRI/McGraw-Hill

Figure 11

OUTLOOK

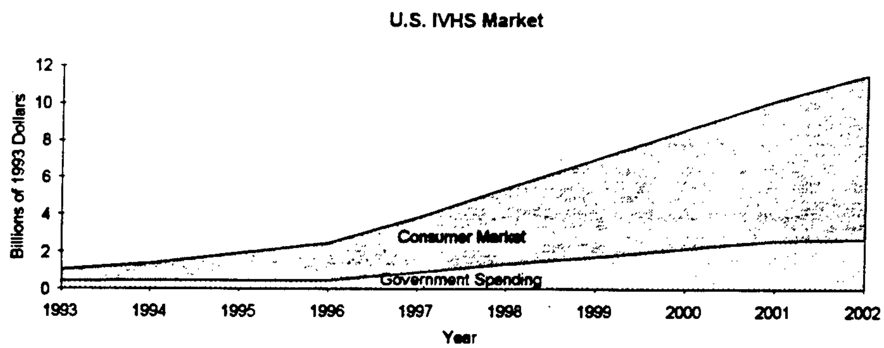
Demand for IVHS technologies will come from both the public and the private sector. Public sector demand will focus on solutions to large scale traffic management issues, such as relieving congestion, streamlining regulation, and automating revenue collection. The demand will be dependent on the savings that IVHS offers over conventional transportation improvement measures. While road congestion will steadily increase for the foreseeable future, road expansion is limited by land availability and cost. IVHS offers governments the option of increasing the capacity of roadways without having to increase the physical amount of roadways.

While public sector demand will be responsive to overall infrastructure needs, private sector demand will be dependent upon more traditional market forces. Private consumer markets will exist in three of the five IVHS functional areas: Advanced Traveler Information Systems, Advanced Vehicle Control Systems, and Commercial Vehicle Operations.

Future demand within each of these categories is foreshadowed by the demand for current high-technology automotive products. Cellular telephones are an example of an advanced technology which uses infrastructure similar to that which will be required for ATIS technologies; 20 to 30 million cellular telephone units are expected to be in use by the year 2000. The AVCS market will be largely responsive to the safety demands of tomorrow's consumers. Considering the safety demands of today's consumers, the AVCS market could be quite large: in the 1992 model year, one half of the automobiles built for the U.S. market were equipped with driver-side air bags, and nearly one third had antilock brakes. Commercial fleets are already experimenting with CVO technologies.

The potential market for IVHS products and services is substantial. While specific R&D funding levels by particular governments or industries may effect the pace of IVHS development, or the relative strength of certain firms in the future IVHS market, the international aspects of IVHS development virtually guarantee that IVHS will become a reality in the future. DRI forecasts that spending in the U.S. on IVHS R&D by both the government and by private industry will increase over the next ten years for all IVHS functional areas. The likely U.S. consumer market for IVHS products could total $40 billion over the next ten years, while government (federal, state, and local) investment in IVHS infrastructure and advanced public transportation systems could total $18 billion in the same ten year period (see figure 12)*. From 1993 through 2002, DRI forecasts a total world IVHS market (including the U.S.) of $170 billion.

* One caveat is in order regarding U.S. Government spending on IVHS: at this stage, federal funding is geared towards research and the development of prototype systems; no infrastructure deployment is yet planned. Future funding levels, and the degree to which the federal government will support infrastructure construction, will depend on the results of prototype evaluations conducted over the next five years or so. In addition, the federal government is faced with conflicting budgetary pressures: heightening concern about the deficit and national debt will put downward pressure on federal spending proposals, while increasing calls for government assistance for emerging technologies will put upward pressure on federal spending proposals. Therefore, while federal assistance for IVHS development is expected to continue, specific funding levels are difficult to predict beyond five years.

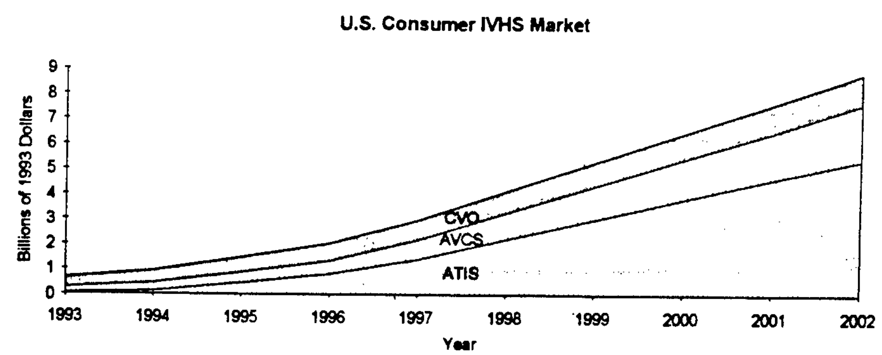


NOTE: Government refers to Federal, State, and Local Governments combined.
SOURCE: General Accounting Office, IVHS America, and DRI/McGraw-Hill

Figure 12

The U.S. Consumer Market: From 1993 through 1997, the annual consumer market will likely grow from roughly half a billion dollars to almost three billion dollars, with an average annual growth rate of nearly fifty percent. The following five years, through 2002, will likely see the market grow at half that rate, to over eight and a half billion dollars per year.

While CVOs capture three-quarters of the 1993 consumer market, their share is forecast to decline to just one-seventh by 2002. ATIS, on the other hand, are forecast to grow from six percent of the IVHS consumer market in 1993 to sixty percent in 2002. AVCS will stay relatively constant at one-quarter of the total market. Figure 13 summarizes the U.S. consumer IVHS market.



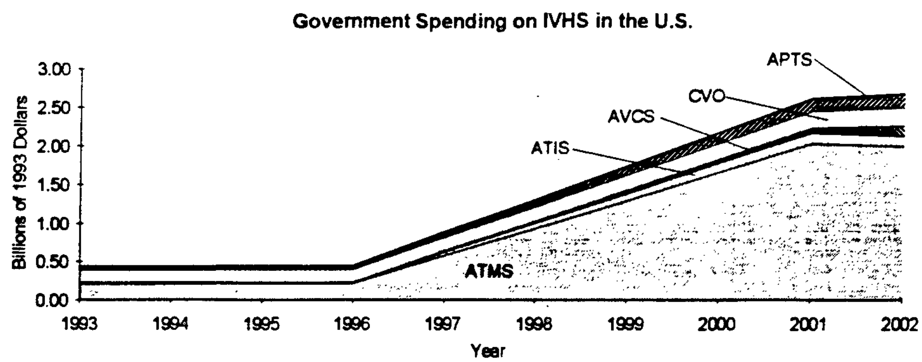
KEY: CVO = Commercial Vehicle Operations; AVCS = Advanced Vehicle Control Systems; ATIS = Advanced Traveler Information Systems

SOURCE: IVHS America, and DRI/McGraw-Hill

Figure 13

Government Spending: Through 1996, government investment in IVHS will likely remain fairly constant. From 1997 through 2001, however, government spending is forecast to increase at an average of forty-five percent per year. After 2001, government investment once again remains nearly constant, growing at two percent per year. Most of the growth in spending from 1997 through 2001 is attributable to increases in government investment in ATMS, which, in the same period, is forecast to grow at over sixty-five percent per year.

APTS account for roughly one-tenth of the government's IVHS spending throughout the period from 1993 to 2002. CVOs account for one-third of government spending in 1993, but are forecast to lose market share, reaching one-tenth of government spending by 2000. ATMS, which account for almost one-half of government spending in 1993, are expected to capture three-quarters of the government IVHS market by 2000. Figure 14 summarizes government spending on IVHS.



KEY: APTS = Advanced Public Transportation System; CVO = Commercial Vehicle Operations; AVCS = Advanced Vehicle Control Systems; ATIS = Advanced Traveler Information Systems; ATMS = Advanced Traffic Management Systems

SOURCE: General Accounting Office, IVHS America, and DRI/McGraw-Hill

Figure 14

SUMMARY: OPPORTUNITIES FOR U.S. DEFENSE CONTRACTORS

The technologies used in designing and assembling modern weapons systems are similar to the technologies required for IVHS development. The high degree of complex systems integration, electronic composition, and automation that have become commonplace in modern weapons systems are also vital to the successful deployment of a fully integrated IVHS. For this reason, many current defense contractors have valuable experience to apply to IVHS. In specific, the automotive, electronics, computer, navigation, and communications industries will find business opportunities in the market for IVHS products and services. Infrastructure requirements will call for firms to develop, among other things, sensors, beacons, electronic toll and traffic management hardware, and transportation network software. Table 3 is a list of IVHS enabling technologies, many of which illustrate the similarities mentioned above:

IVHS Enabling Technologies

Sensors

- Driver performance
- Vision detection
- Obstacle detection
- Lane sensing
- Road friction
- Distance (ranging devices)
- Absolute location
- Acceleration & velocity detection
- Angular rate
- Vehicle presence and speed
- Vehicle classification
- Weigh-in-motion
- Rollover detection
- Automated vehicle ID

Electromechanical Actuation Systems

- Antilock brakes
- Traction control
- Electronic throttle control
- Electronic steering
- Four-wheel steering
- Electronic braking actuation
- Electronic engine controls
- Electronic transmission controls
- Electric propulsion

Miscellaneous Electronics

- Vehicle/vehicle communications
- Vehicle/roadway communications
- High-speed computation
- Electronic voice synthesis
- Speech recognition
- Speaker verification
- Photonics
- Flexible format displays

Software and Systems Technology

- Data fusion
- Automated routing and scheduling
- Network flow optimization
- Diagnostics (fault detection)
- Fault tolerant system design
- Artificial intelligence/neural networks
- "Threat" analysis
- Architecture for system integration
- Adaptive control design
- Human interface design
- Reliability engineering
- Local area networking

SOURCE: IVHS America

TABLE 3

Numerous firms are already involved in the research and development of IVHS products. Membership in IVHS America, a trade association chartered by the Department of Transportation to offer advice on IVHS development, includes 214 organizations from both the public and private sectors. Among the member organizations are nine of the top thirty defense contractors, who together comprise over thirteen percent of total DoD prime contract awards. These and other current defense contractors could use the burgeoning IVHS market to offset some of the decline in defense-related revenue. DRI forecasts that U.S. firms will be able to capture over twenty percent of the world IVHS market, or $40 billion over the next ten years. In addition, the IVHS market will likely grow for at least the next quarter century, offering long-term market opportunities.

HIGH SPEED GROUND TRANSPORTATION

THE MARKET

High-speed ground transport can be divided into two categories: high-speed rail and magnetically levitated (maglev) vehicles. High-speed rail vehicles are conventional steel-wheel-on-rail trains that travel on upgraded tracks at speeds that approach two hundred miles per hour. Magnetically levitated vehicles are trains that are suspended above a guideway by a powerful magnetic force, and propelled at speeds that can exceed three hundred miles per hour. Already well developed and in use in Japan since 1964, high speed rail technology could be implemented in the U.S. on existing railroad rights-of-way if tracks were upgraded appropriately. Maglev technology is still in its early stages of development, and any maglev route would require the construction of both new vehicles and an entirely new infrastructure. However, maglev offers significantly increased speeds over high-speed rail, as well as the potential for reduced maintenance costs and increased fuel efficiency in the distant future.

CURRENT STATUS

High-Speed Rail: High-speed rail systems are currently in operation in a number of countries, most notably the following:

France:

- Train a Grand Vitesse (TGV)
- operation began in the early 1980s
- 163 miles of track
- maximum speed is 186 miles per hour

Japan:

- Shinkansen (Bullet Train)
- operation began in 1964
- 875 miles of track
- maximum speed is 150 miles per hour

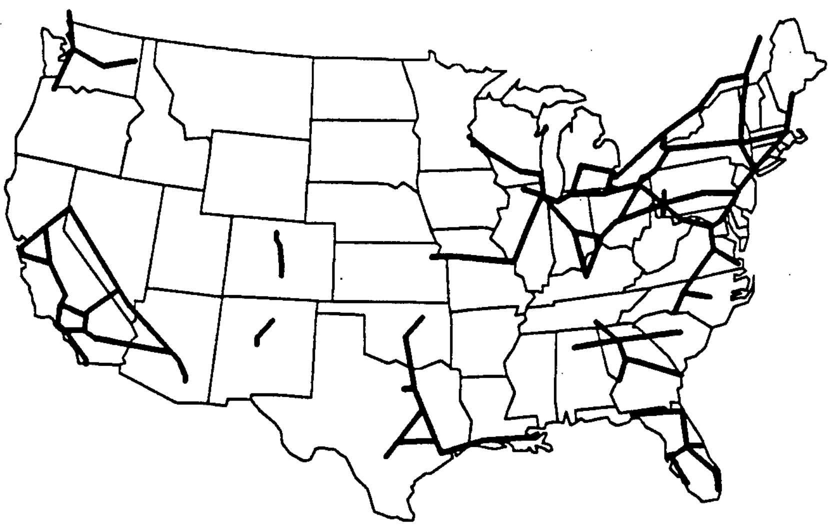
Germany:

- Intercity Express (ICE)
- operation began in 1991
- 450 miles of track
- maximum speed is 180 miles per hour

Other high-speed rail systems are being considered, including a number in the U.S. The Amtrak Metroliner between New York City and Washington, D.C. currently achieves speeds of up to 125 miles per hour, which is considered in the range of high-speed rail. Also, Amtrak recently purchased Swedish trains that can reach higher speeds on existing tracks than Amtrak's current trains because they tilt when traveling around turns; these trains may achieve speeds of 150 miles per hour between New York City and Boston.

Maglev: High-speed maglev systems are not in revenue operation anywhere in the world today, but two low-speed maglev systems are: one 620-meter system in Birmingham, England, in operation for over a decade, and one 1-mile system in Berlin, Germany, operational since 1986. High-speed maglev systems are being considered in a number of locations. The Germans and the Japanese have spent over $1 billion dollars each on high-speed maglev R&D, and both nations have developed prototype systems. Although at a disadvantage compared to foreign nations due to the relatively late resurgence of American R&D efforts, the U.S. is also considering developing prototype high-speed maglev systems in a number of locations. Figure 15 displays a number of planned or proposed high-speed ground transport routes in the U.S.

High-Speed Ground Transportation Routes in the United States
Planned and Proposed



SOURCE: High Speed Rail Association

Figure 15

OUTLOOK

Increases in airport congestion and delays will create an opening in the 500 mile or less intercity transportation market. If maglev systems can operate with fares that rival airfares, they will be highly competitive with the airlines in the short-haul time-sensitive intercity traveler market (i.e., business travel between cities within 500 miles of one another). High-speed rail, with significantly lower speeds than maglev, will be less competitive with air transportation. However, it is worth noting that the Japanese and French high-speed rail systems captured a significant portion of select intercity travel markets. The Japanese Shinkansen Bullet Train captured eighty percent of the 320-mile Tokyo-Osaka intercity travel market, and the French TGV captured fifty-percent of the Paris-Lyon air travel market. While significant differences exist between American and foreign travel markets, similar market-share patterns are possible. Amtrak already carries more passengers between New York City and Washington, D.C. than does any single airline, and the Coalition of Northeastern Governors estimates that a three hour Boston to New York City train could eliminate 50 flights a day between the two cities and free 10 gates at Boston's Logan Airport.

Since upwards of eighty percent of maglev development costs will go towards initial infrastructure construction (i.e., guideways, stations, etc.), and since it is doubtful that private industry can afford to cover all infrastructure costs, a large-scale public effort is required prior to the appearance of a commercially viable maglev system. High-speed rail systems, however, are less costly to develop than maglev systems. Infrastructure costs for high-speed rail infrastructure are half those of maglev. In addition, track upgrades to high-speed rail quality can occur in discrete stages since high-speed rail trains can operate on conventional tracks at reduced speeds. Therefore, no massive initial funding effort is required prior to the appearance of commercially viable high-speed rail systems.

SUMMARY: OPPORTUNITIES FOR U.S. DEFENSE CONTRACTORS

The high-speed rail market offers little opportunity to current defense contractors considering alternative revenue sources, since the majority of the funding for high-speed rail will go towards upgrading conventional rail systems. On the other hand, the maglev market, dependent on technological innovation for growth, would appear to offer defense contractors greater revenue opportunities. Over the next two decades, the maglev market could total $70 billion in the U.S. and $325 billion worldwide. Eighty percent of this market will be captured by firms that prepare the rights-of-way and put the infrastructure in place, primarily engineering and construction firms. If defense contractors focus on the remaining twenty percent of the maglev market, over the next two decades the relevant market would only total $14 billion and $65 billion in the U.S. and worldwide, respectively.

Current maglev R&D is being conducted by seven of the top fifteen defense contractors, who together comprise over sixteen percent of total DoD prime contract awards. However, the $14 billion potential U.S. market would still have to be shared with a large number of firms that are not currently involved in defense related work. The result would be an average amount below one half billion dollars per year, to be divided between all current defense contractors. Therefore, the relevant U.S. market for maglev systems does not appear sufficient to offset a significant amount of the expected decline in defense contractor revenues. Likewise, the international market, with foreign firms already dominantly positioned, also offers insufficient revenue potential. Maglev may be a market current defense contractors should consider moving into, but it offers little relief from declines in defense spending.

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